

# **Potential Flow Forces and Moments from Selected Ship Flow Codes in a Set of Numerical Experiments**

## **Appendix H — Time History Plots for 0-DOF Motion of Model 5514 in Waves**

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H-875.	Time history of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1990
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- H-604. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-845
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- H-832. Minimum and maximum of of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1073
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- H-839. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1081
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- H-844. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1085
- H-845. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1087
- H-846. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1087
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- H-848. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1089
- H-849. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1091
- H-850. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1091
- H-851. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1093
- H-852. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1093
- H-853. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1095
- H-854. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1095
- H-855. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1097

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- H-856. Minimum and maximum of of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1097
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- H-880. Minimum and maximum of of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1121
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- H-892. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1133
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- H-904. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1145
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- H-907. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1149
- H-908. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1149
- H-909. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1151
- H-910. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1151
- H-911. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1153
- H-912. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1153
- H-913. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1155
- H-914. Minimum and maximum of of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1155
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- H-916. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1157
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H-952.	Minimum and maximum of of $M_y^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1193
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H-964.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1205
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H-966.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1207
H-967.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1209
H-968.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1209
H-969.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1211
H-970.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1211
H-971.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1213
H-972.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1213
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H-974.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1215
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- H-976. Minimum and maximum of of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1217
- H-977. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1219
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H-1004.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1245
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- H-1013. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1255
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H-1024.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1265
H-1025.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1267
H-1026.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1267
H-1027.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1269
H-1028.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1269
H-1029.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1271
H-1030.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1271
H-1031.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1273
H-1032.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1273
H-1033.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1275
H-1034.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1275
H-1035.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1277

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H-1036.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1277
H-1037.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1279
H-1038.	Minimum and maximum of of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1279
H-1039.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{hst}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1281
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- H-1084. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1325
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- H-1089. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1331
- H-1090. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1331
- H-1091. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1333
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- H-1096. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1337
- H-1097. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1339
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- H-1100. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1341
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H-1157.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{fk}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1399
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H-1207.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1449
H-1208.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1449
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H-1211.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1453
H-1212.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1453
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H-1216.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1457
H-1217.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1459
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H-1219.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1461
H-1220.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1461
H-1221.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1463
H-1222.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1463
H-1223.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1465
H-1224.	Minimum and maximum of of $F_z^{\text{fk}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1465
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- H-1348. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1589
- H-1349. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1591
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- H-1403. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1645
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- H-1406. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1647
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H-1408.	Minimum and maximum of of $M_y^{fk}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1649
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H-1410.	Minimum and maximum of of $M_y^{fk}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1651
H-1411.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{fk}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1653
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- H-1540. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1781
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H-1576.	Minimum and maximum of of $F_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1817
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H-1588.	Minimum and maximum of of $F_x^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1829
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H-1597.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_x^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1839
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H-1600.	Minimum and maximum of of $F_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1841
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H-1646.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-1887
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H-1648.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1889
H-1649.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1891
H-1650.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1891
H-1651.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1893
H-1652.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1893
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H-1654.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1895
H-1655.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1897
H-1656.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1897
H-1657.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1899
H-1658.	Minimum and maximum of of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1899
H-1659.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1901



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- H-1660. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1901
- H-1661. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1903
- H-1662. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1903
- H-1663. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1905
- H-1664. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1905
- H-1665. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1907
- H-1666. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1907
- H-1667. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1909
- H-1668. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1909
- H-1669. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1911
- H-1670. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1911
- H-1671. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1913

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- H-1672. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1913
- H-1673. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1915
- H-1674. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1915
- H-1675. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1917
- H-1676. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1917
- H-1677. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1919
- H-1678. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1919
- H-1679. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1921
- H-1680. Minimum and maximum of of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1921
- H-1681. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1923
- H-1682. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1923
- H-1683. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1925

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- H-1684. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1925
- H-1685. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1927
- H-1686. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1927
- H-1687. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1929
- H-1688. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1929
- H-1689. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1931
- H-1690. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1931
- H-1691. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1933
- H-1692. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1933
- H-1693. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1935
- H-1694. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1935
- H-1695. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1937

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- H-1696. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1937
- H-1697. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1939
- H-1698. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1939
- H-1699. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1941
- H-1700. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1941
- H-1701. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1943
- H-1702. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1943
- H-1703. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1945
- H-1704. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1945
- H-1705. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1947
- H-1706. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1947
- H-1707. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1949

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H-1708.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1949
H-1709.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1951
H-1710.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1951
H-1711.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1953
H-1712.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1953
H-1713.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1955
H-1714.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1955
H-1715.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1957
H-1716.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1957
H-1717.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1959
H-1718.	Minimum and maximum of of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1959
H-1719.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $F_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-1961

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- H-1720. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1961
- H-1721. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1963
- H-1722. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1963
- H-1723. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1965
- H-1724. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1965
- H-1725. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1967
- H-1726. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1967
- H-1727. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1969
- H-1728. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1969
- H-1729. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1971
- H-1730. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1971
- H-1731. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1973

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- H-1732. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1973
- H-1733. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1975
- H-1734. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1975
- H-1735. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1977
- H-1736. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1977
- H-1737. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1979
- H-1738. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1979
- H-1739. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1981
- H-1740. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1981
- H-1741. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1983
- H-1742. Minimum and maximum of of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1983
- H-1743. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1985

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- H-1744. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1985
- H-1745. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1987
- H-1746. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1987
- H-1747. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1989
- H-1748. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1989
- H-1749. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1991
- H-1750. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1991
- H-1751. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1993
- H-1752. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1993
- H-1753. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1995
- H-1754. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1995
- H-1755. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-1997



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- H-1756. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1997
- H-1757. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1999
- H-1758. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-1999
- H-1759. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2001
- H-1760. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2001
- H-1761. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2003
- H-1762. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2003
- H-1763. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2005
- H-1764. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2005
- H-1765. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2007
- H-1766. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2007
- H-1767. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2009

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- H-1768. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2009
- H-1769. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2011
- H-1770. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2011
- H-1771. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2013
- H-1772. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2013
- H-1773. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2015
- H-1774. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2015
- H-1775. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2017
- H-1776. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2017
- H-1777. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2019
- H-1778. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2019
- H-1779. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2021

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- H-1780. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2021
- H-1781. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2023
- H-1782. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2023
- H-1783. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2025
- H-1784. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2025
- H-1785. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2027
- H-1786. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2027
- H-1787. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2029
- H-1788. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2029
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- H-1816. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2057
- H-1817. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2059
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- H-1822. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2063
- H-1823. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2065
- H-1824. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2065
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- H-1826. Minimum and maximum of of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . . H-2067
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H-1828.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2069
H-1829.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2071
H-1830.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2071
H-1831.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2073
H-1832.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2073
H-1833.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2075
H-1834.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2075
H-1835.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2077
H-1836.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2077
H-1837.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2079
H-1838.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2079
H-1839.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2081

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H-1840.	Minimum and maximum of of $M_x^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2081
H-1841.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2083
H-1842.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2083
H-1843.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2085
H-1844.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2085
H-1845.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2087
H-1846.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2087
H-1847.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2089
H-1848.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2089
H-1849.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2091
H-1850.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2091
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H-1900.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2141
H-1901.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2143
H-1902.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2143
H-1903.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2145
H-1904.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2145
H-1905.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2147
H-1906.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2147
H-1907.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2149
H-1908.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2149
H-1909.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2151
H-1910.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2151
H-1911.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2153

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H-1912.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2153
H-1913.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2155
H-1914.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2155
H-1915.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2157
H-1916.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2157
H-1917.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2159
H-1918.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2159
H-1919.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2161
H-1920.	Minimum and maximum of of $M_y^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2161
H-1921.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2163
H-1922.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2163
H-1923.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2165

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H-1924.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2165
H-1925.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2167
H-1926.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2167
H-1927.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2169
H-1928.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2169
H-1929.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2171
H-1930.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2171
H-1931.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2173
H-1932.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2173
H-1933.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2175
H-1934.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2175
H-1935.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2177

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H-1936.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2177
H-1937.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2179
H-1938.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2179
H-1939.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2181
H-1940.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2181
H-1941.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2183
H-1942.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2183
H-1943.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2185
H-1944.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2185
H-1945.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2187
H-1946.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2187
H-1947.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2189



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H-1948.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2189
H-1949.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2191
H-1950.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2191
H-1951.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2193
H-1952.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 135^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2193
H-1953.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2195
H-1954.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2195
H-1955.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2197
H-1956.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2197
H-1957.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2199
H-1958.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2199
H-1959.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to $L = 142$ m. . . . .	H-2201

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H-1960.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 180^\circ$ , $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2201
H-1961.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2203
H-1962.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2203
H-1963.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2205
H-1964.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2205
H-1965.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2207
H-1966.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2207
H-1967.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2209
H-1968.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 0^\circ$ , $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2209
H-1969.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2211
H-1970.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2211
H-1971.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2213

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H-1972.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2213
H-1973.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2215
H-1974.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2215
H-1975.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2217
H-1976.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 45^\circ$ , $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2217
H-1977.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2219
H-1978.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/60$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2219
H-1979.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2221
H-1980.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/20$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2221
H-1981.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2223
H-1982.	Minimum and maximum of of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/15$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2223
H-1983.	Coefficients of the Fourier fit $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$ of $M_z^{\text{dif}}$ for one period for $H/\lambda = 1/10$ , $\lambda/L = 1$ , $\beta = 90^\circ$ , $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m. . . . .	H-2225

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- H-1984. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2225
- H-1985. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2227
- H-1986. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2227
- H-1987. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2229
- H-1988. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2229
- H-1989. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2231
- H-1990. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2231
- H-1991. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2233
- H-1992. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2233
- H-1993. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2235
- H-1994. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2235
- H-1995. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2237

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- H-1996. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2237
- H-1997. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2239
- H-1998. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2239
- H-1999. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2241
- H-2000. Minimum and maximum of of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m. . . . . H-2241

### Introduction

This appendix contains all the plots and tables for the simulations involving prescribed 0-DOF motion in waves of Model 5514 scaled to the length 142 m. Each of Figures H–1 through H–1000 contains time-history plots of the results from all codes for a single variable during one period of motion. If the code runner did not supply the data, the data vanish identically, or the data are insufficient for a single period, there is no curve for that code. The lack of data in any figure has been noted immediately below the figure. As necessary, the time that appears on the horizontal axis has been shifted so that the wave height at CG is of the form  $\eta = \eta_a \sin \omega t$  for some amplitude  $\eta_a$  and some frequency  $\omega$ . Furthermore, the time  $t$  has been replaced by  $t \bmod T_e$  where  $T_e$  is the period of the motion.

Tables H–1 through H–2000 contain information related to the results depicted in the figures. Two tables follow each figure. The first table gives estimates of the mean value and the amplitudes and phases of the first and second harmonics obtained by Fourier analysis. The second table gives the minimum and maximum of the variable plotted in the figure. The minimum and maximum of both the filtered and unfiltered variable are provided.

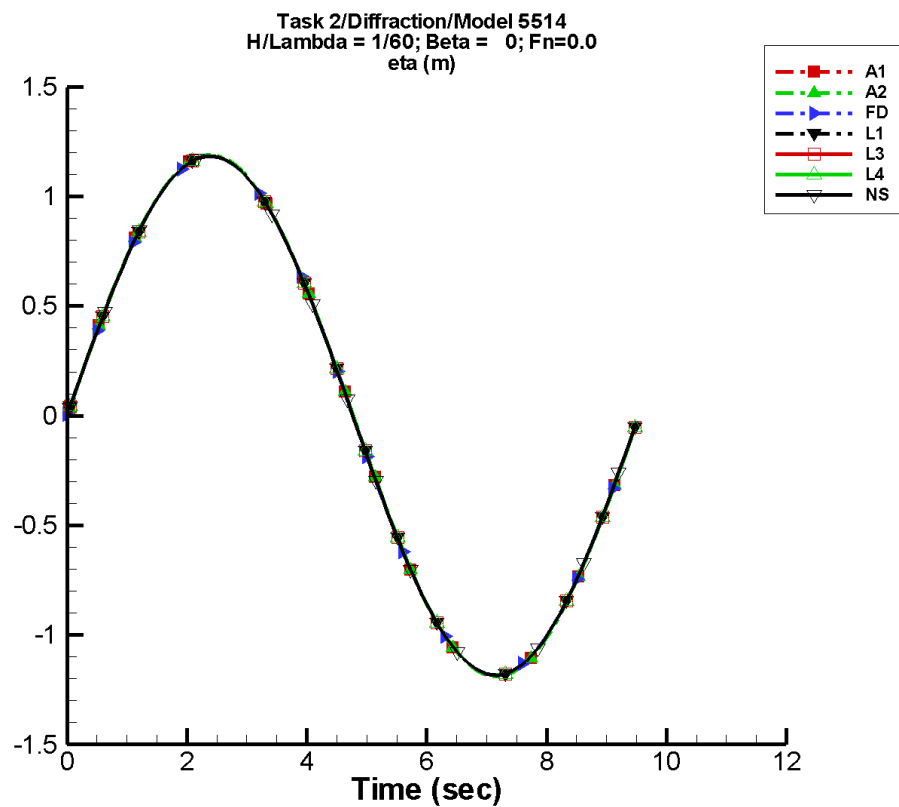
Appendix R contains plots and tables for the behavior of the minimum and the maximum of each variable plotted in this appendix versus the wave steepness  $\lambda/H$ .

The headings are the same for both ships and speeds, as are the nondimensional wavelengths and wave steepnesses. The description of the waves is given in tables in the main part of the report. For ease of reference, the tables are reproduced here:

$\beta$ (°)	Seas
0	Following
45	Stern quartering
90	Beam
135	Bow quartering
180	Head

Wavelength $\lambda/L$	Wave Steepness $H/\lambda$
1	1/60
1	1/20
1	1/15
1	1/10

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-1. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

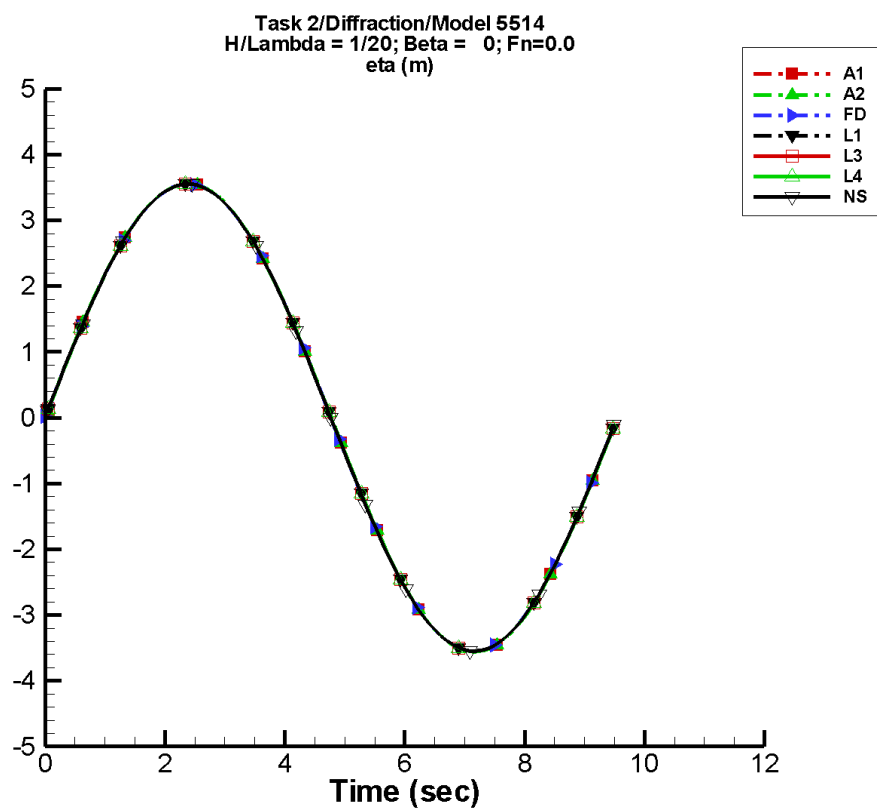
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.63E-05	-80
L1	-4.08E-04	1.18	-4	6.52E-04	-39
L3	-4.08E-04	1.18	-4	6.52E-04	-39
L4	-4.08E-04	1.18	-4	6.52E-04	-39
NF	—	—	—	—	—
NS	-2.51E-04	1.18	0	3.72E-04	-17

Table H-2. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.19



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-2. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

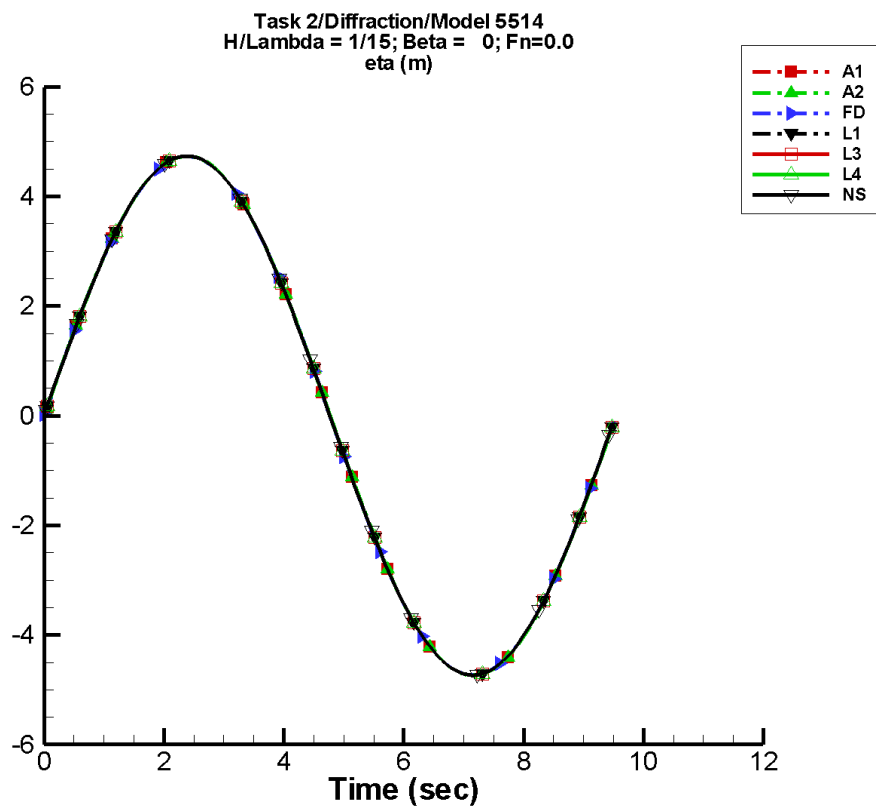
Table H-3. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.22E-04	3.55	-6	1.10E-04	-80
L1	-1.23E-03	3.55	-4	1.95E-03	-39
L3	-1.23E-03	3.55	-4	1.95E-03	-39
L4	-1.23E-03	3.55	-4	1.95E-03	-39
NF	—	—	—	—	—
NS	-7.51E-04	3.55	0	1.12E-03	-17

Table H-4. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.56

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-3. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

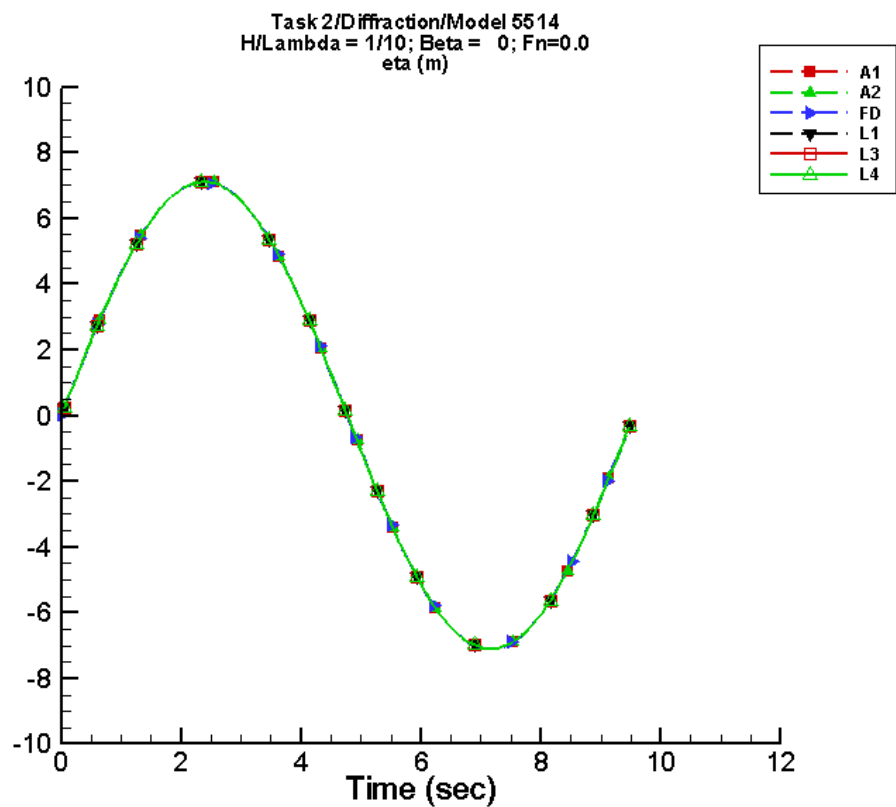
Table H-5. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.47E-04	-80
L1	-1.63E-03	4.74	-4	2.61E-03	-39
L3	-1.63E-03	4.74	-4	2.61E-03	-39
L4	-1.63E-03	4.74	-4	2.61E-03	-39
NF	—	—	—	—	—
NS	-1.00E-03	4.73	0	1.48E-03	-17

Table H-6. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.74	4.74	-4.71	4.75

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-4. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

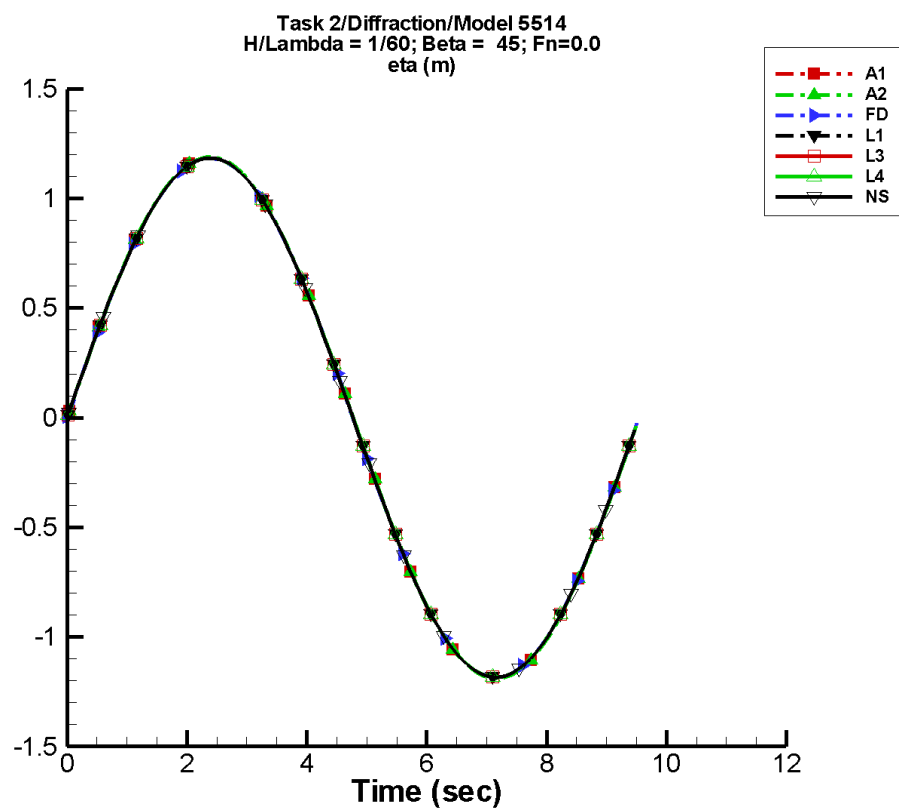
Table H-7. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	-5.18E-03	7.12	-5	8.08E-03	-28
FD	-2.43E-04	7.10	-6	2.19E-04	-80
L1	-2.45E-03	7.10	-4	3.91E-03	-39
L3	-2.45E-03	7.10	-4	3.91E-03	-39
L4	-2.45E-03	7.10	-4	3.91E-03	-39
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-8. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	-7.12	7.12	-7.04	7.04
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.07	7.08
L3	-7.10	7.10	-7.07	7.08
L4	-7.10	7.10	-7.07	7.08
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-5. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-9. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

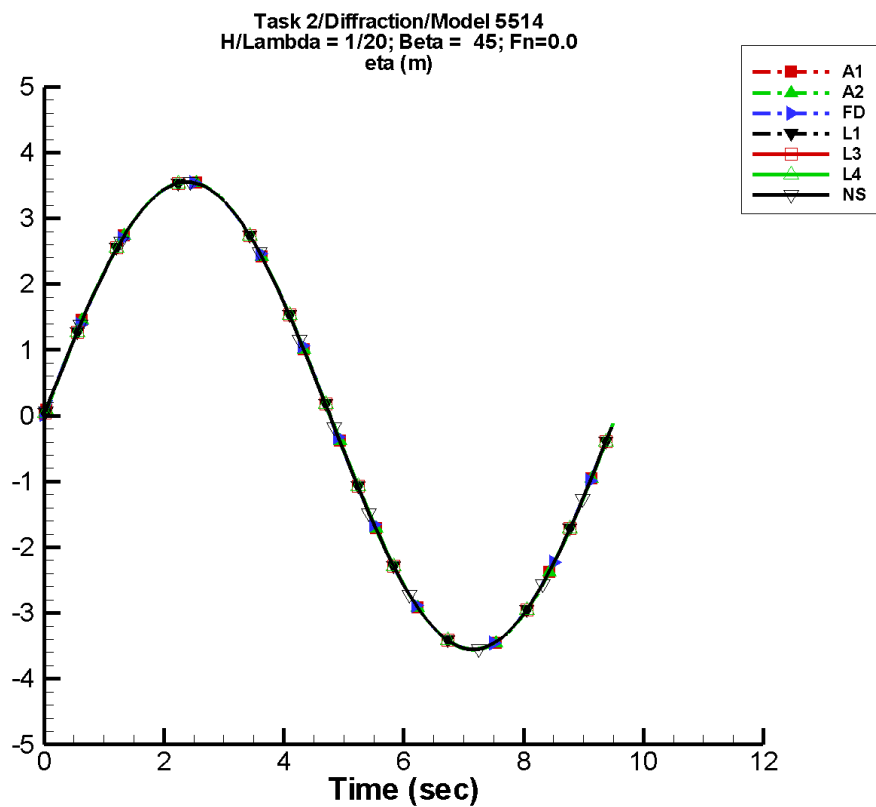
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.63E-05	-80
L1	-4.48E-04	1.18	-4	7.82E-04	-29
L3	-4.48E-04	1.18	-4	7.82E-04	-29
L4	-4.48E-04	1.18	-4	7.82E-04	-29
NF	—	—	—	—	—
NS	-2.47E-04	1.18	0	3.67E-04	-16

Table H-10. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.18



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-6. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

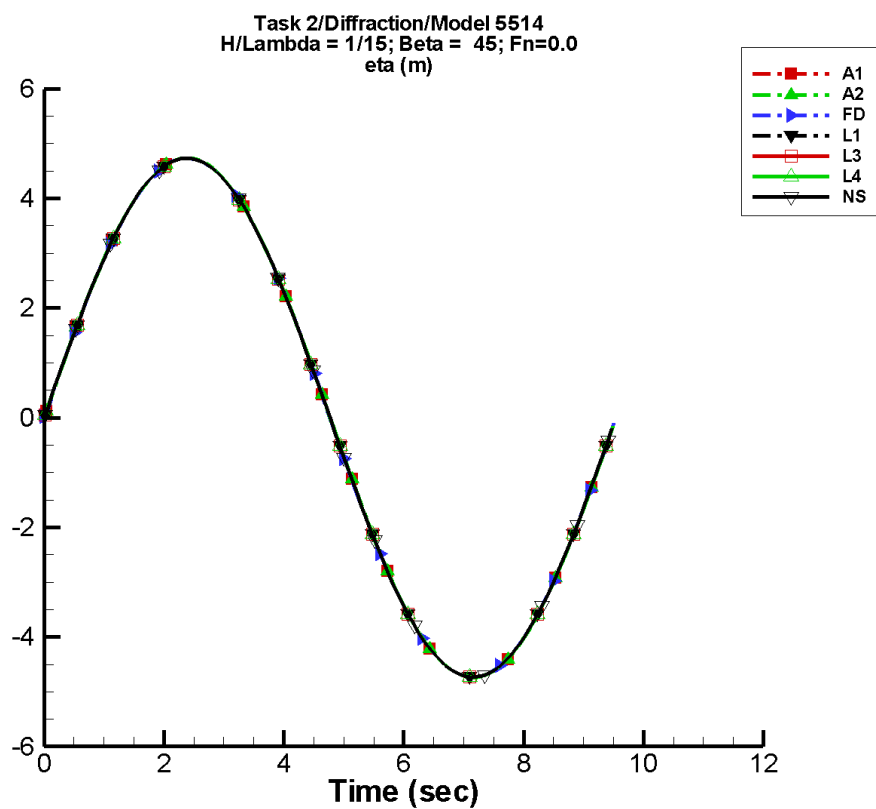
Table H-11. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.22E-04	3.55	-6	1.10E-04	-80
L1	-1.34E-03	3.55	-4	2.35E-03	-29
L3	-1.34E-03	3.55	-4	2.35E-03	-29
L4	-1.34E-03	3.55	-4	2.35E-03	-29
NF	—	—	—	—	—
NS	-7.40E-04	3.55	0	1.10E-03	-16

Table H-12. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.55

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-7. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

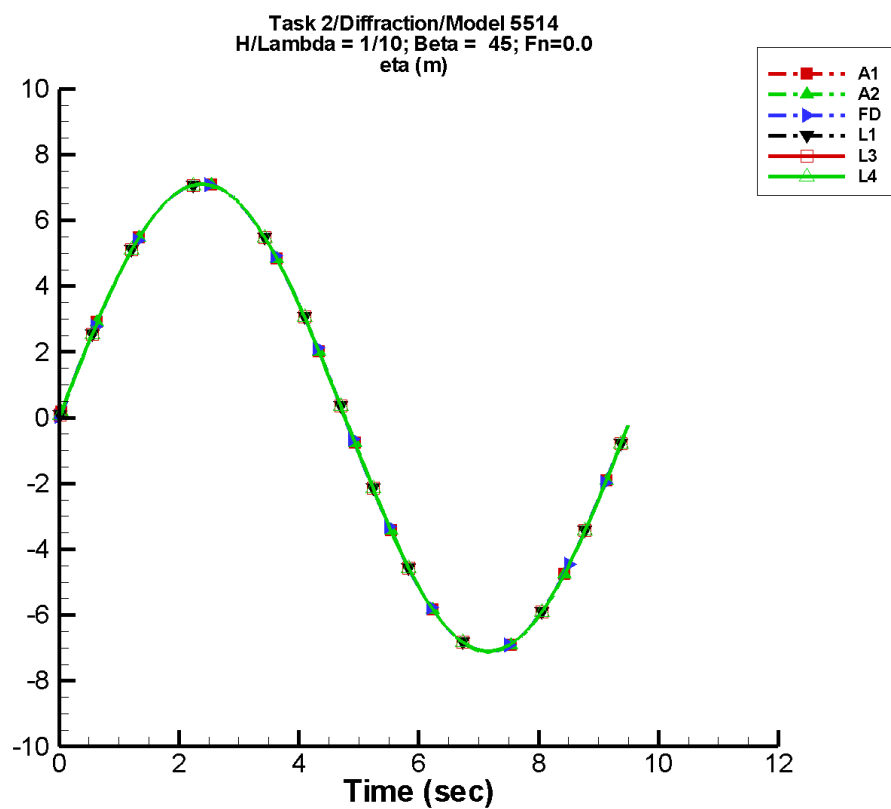
Table H-13. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.47E-04	-80
L1	-1.79E-03	4.73	-4	3.13E-03	-29
L3	-1.79E-03	4.73	-4	3.13E-03	-29
L4	-1.79E-03	4.73	-4	3.13E-03	-29
NF	—	—	—	—	—
NS	-9.84E-04	4.73	0	1.47E-03	-16

Table H-14. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.73	4.73	-4.71	4.75

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-8. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

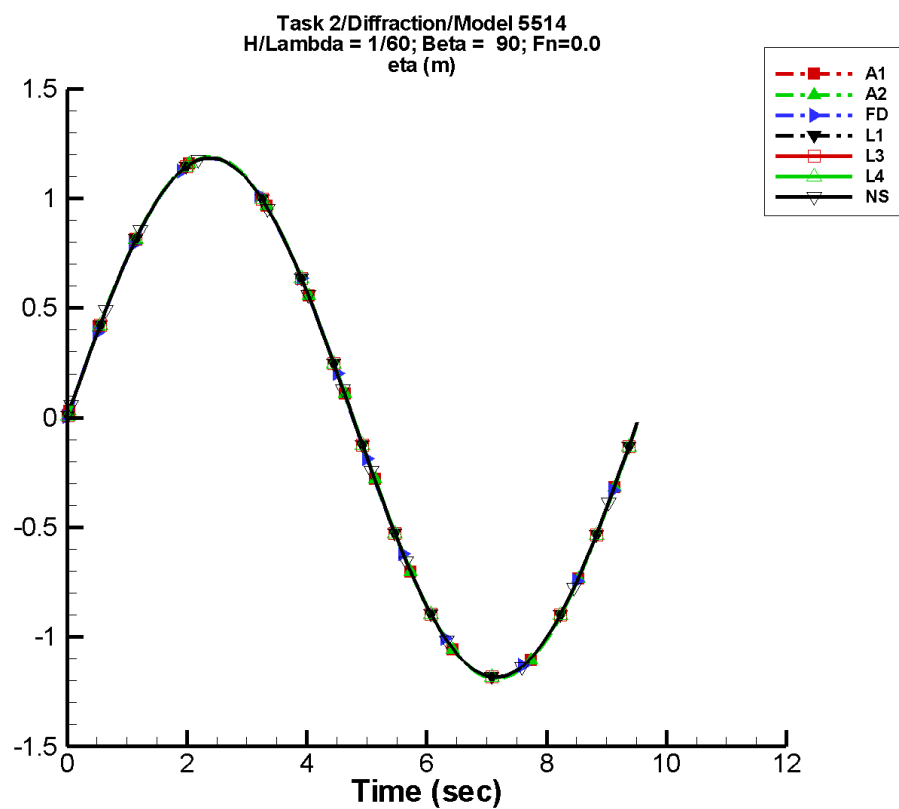
Table H-15. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	4.86E-03	7.12	0	8.99E-03	51
FD	-2.43E-04	7.10	-6	2.19E-04	-80
L1	-2.69E-03	7.10	-4	4.69E-03	-29
L3	-2.69E-03	7.10	-4	4.69E-03	-29
L4	-2.69E-03	7.10	-4	4.69E-03	-29
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-16. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	-7.12	7.12	-7.04	7.04
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.07	7.07
L3	-7.10	7.10	-7.07	7.07
L4	-7.10	7.10	-7.07	7.07
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-9. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-17. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

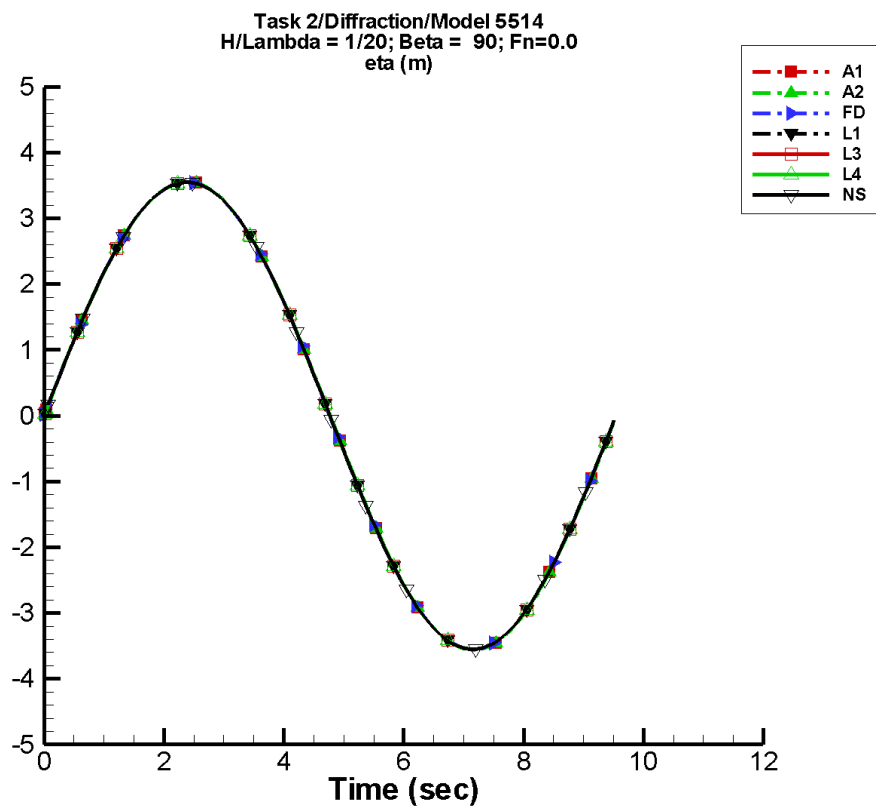
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.63E-05	-80
L1	5.20E-04	1.18	-4	9.35E-04	29
L3	5.20E-04	1.18	-4	9.35E-04	29
L4	5.20E-04	1.18	-4	9.35E-04	29
NF	—	—	—	—	—
NS	-2.55E-04	1.18	0	3.76E-04	-18

Table H-18. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.18



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-10. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

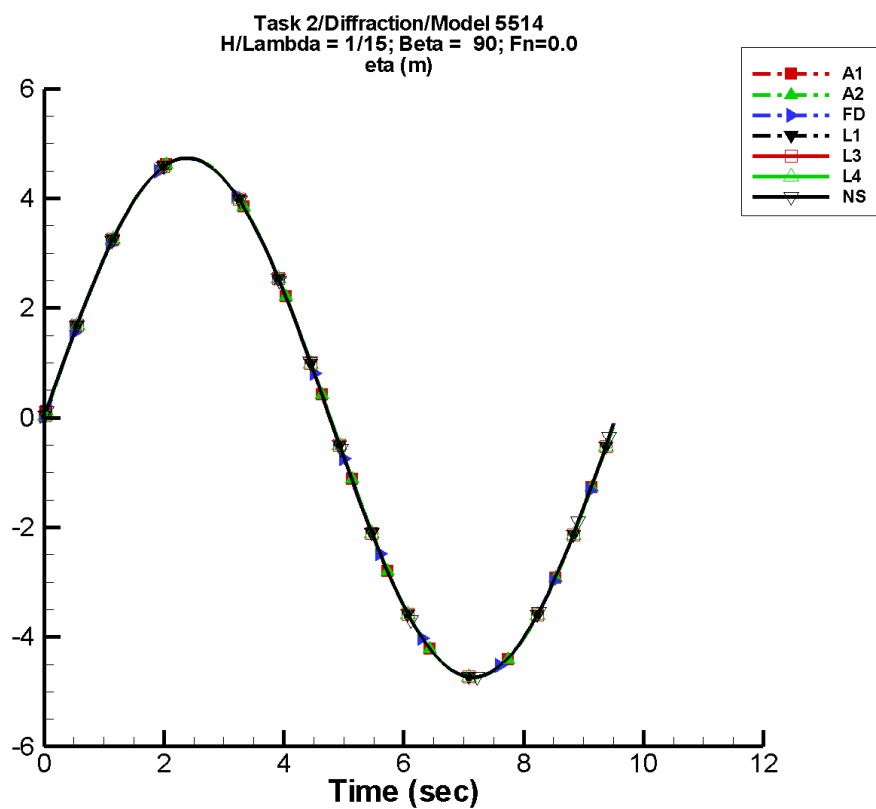
Table H-19. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.22E-04	3.55	-6	1.10E-04	-80
L1	1.56E-03	3.55	-4	2.80E-03	29
L3	1.56E-03	3.55	-4	2.80E-03	29
L4	1.56E-03	3.55	-4	2.80E-03	29
NF	—	—	—	—	—
NS	-7.66E-04	3.55	0	1.13E-03	-18

Table H-20. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.54

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-11. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

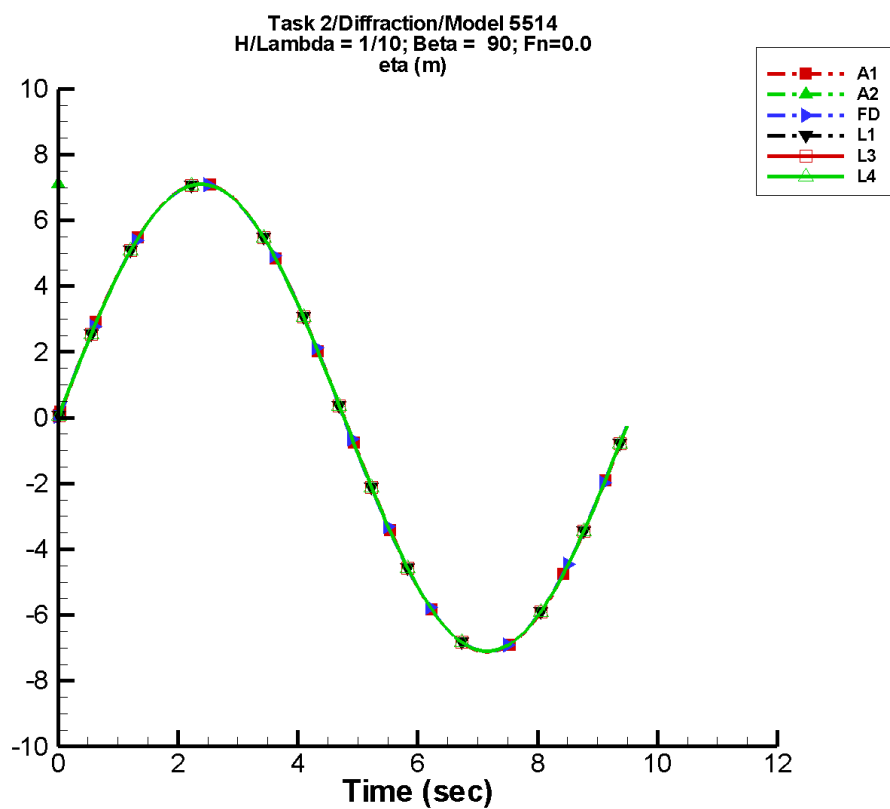
Table H-21. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.47E-04	-80
L1	2.08E-03	4.74	-4	3.74E-03	29
L3	2.08E-03	4.74	-4	3.74E-03	29
L4	2.08E-03	4.74	-4	3.74E-03	29
NF	—	—	—	—	—
NS	-1.00E-03	4.73	0	1.49E-03	-17

Table H-22. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.74	4.74	-4.71	4.73

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-12. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

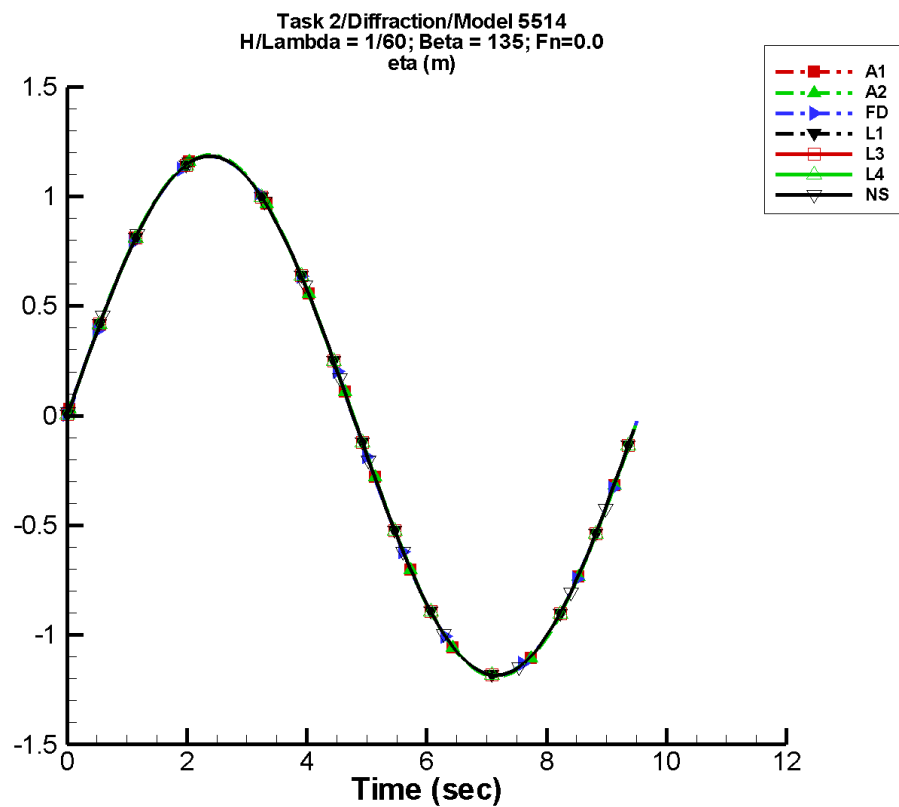
Table H-23. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	-9.44	4.45	-17	12.4	-80
FD	-2.43E-04	7.10	-6	2.19E-04	-80
L1	3.12E-03	7.10	-4	5.61E-03	29
L3	3.12E-03	7.10	-4	5.61E-03	29
L4	3.12E-03	7.10	-4	5.61E-03	29
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-24. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	7.09	7.12	7.09	7.12
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.08	7.07
L3	-7.10	7.10	-7.08	7.07
L4	-7.10	7.10	-7.08	7.07
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-13. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-25. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

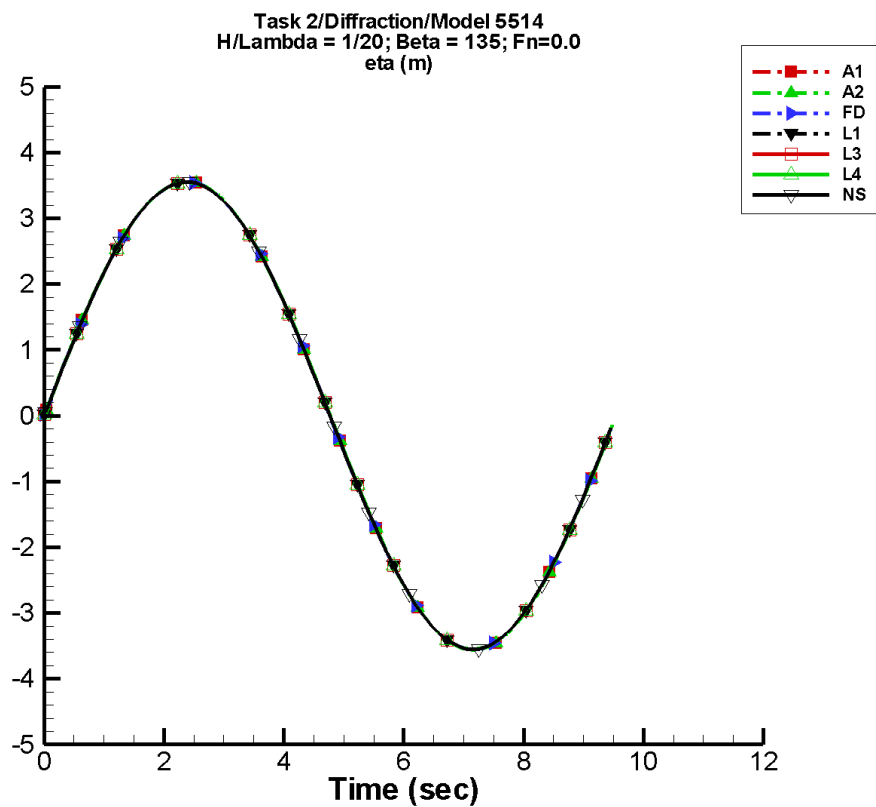
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.63E-05	-80
L1	-1.82E-05	1.18	-4	7.10E-05	90
L3	-1.82E-05	1.18	-4	7.10E-05	90
L4	-1.82E-05	1.18	-4	7.10E-05	90
NF	—	—	—	—	—
NS	-2.47E-04	1.18	0	3.66E-04	-16

Table H-26. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.17



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-14. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

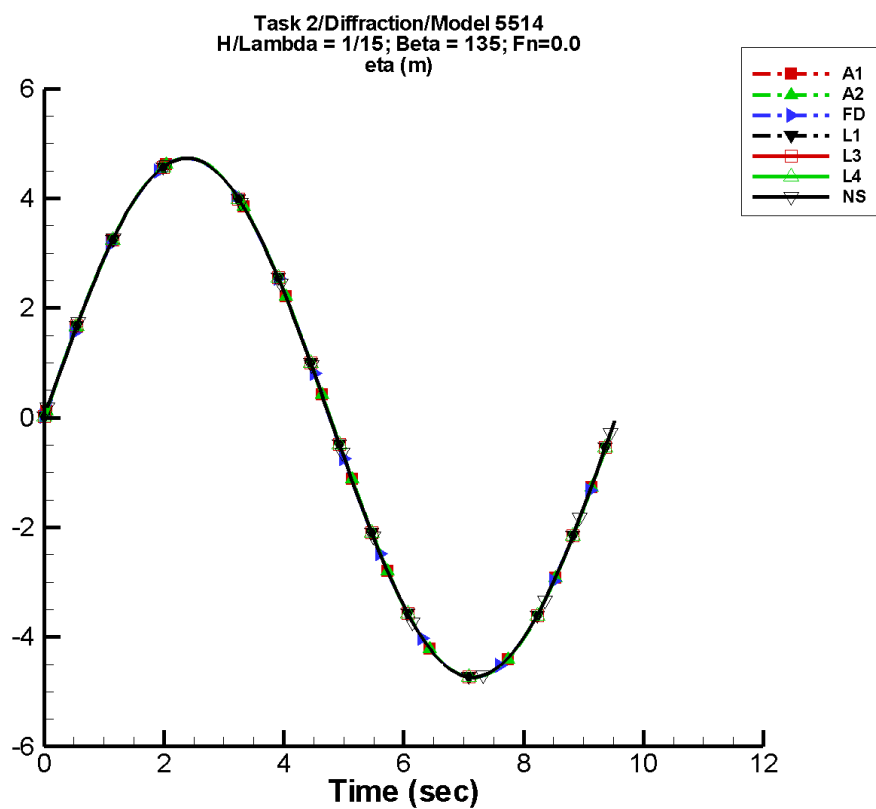
Table H-27. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.22E-04	3.55	-6	1.10E-04	-80
L1	-5.46E-05	3.55	-4	2.12E-04	90
L3	-5.46E-05	3.55	-4	2.12E-04	90
L4	-5.46E-05	3.55	-4	2.12E-04	90
NF	—	—	—	—	—
NS	-7.40E-04	3.55	0	1.10E-03	-16

Table H-28. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.52

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-15. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

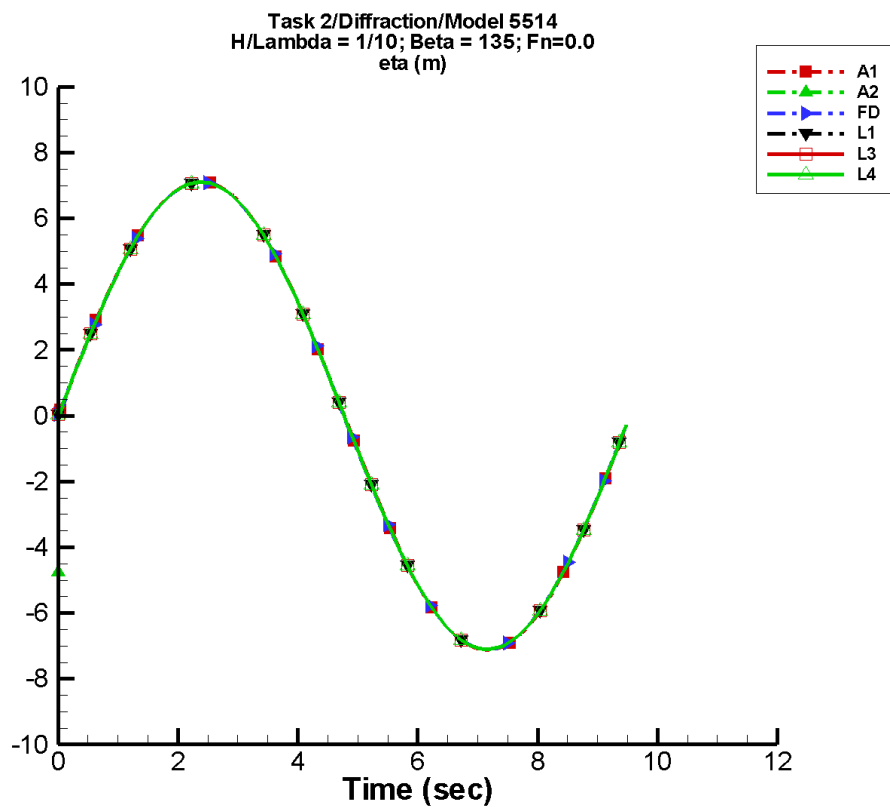
Table H–29. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.47E-04	-80
L1	-7.26E-05	4.74	-4	2.83E-04	90
L3	-7.26E-05	4.74	-4	2.83E-04	90
L4	-7.26E-05	4.74	-4	2.83E-04	90
NF	—	—	—	—	—
NS	-1.02E-03	4.73	0	1.50E-03	-18

Table H–30. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.73	4.73	-4.71	4.71

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-16. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

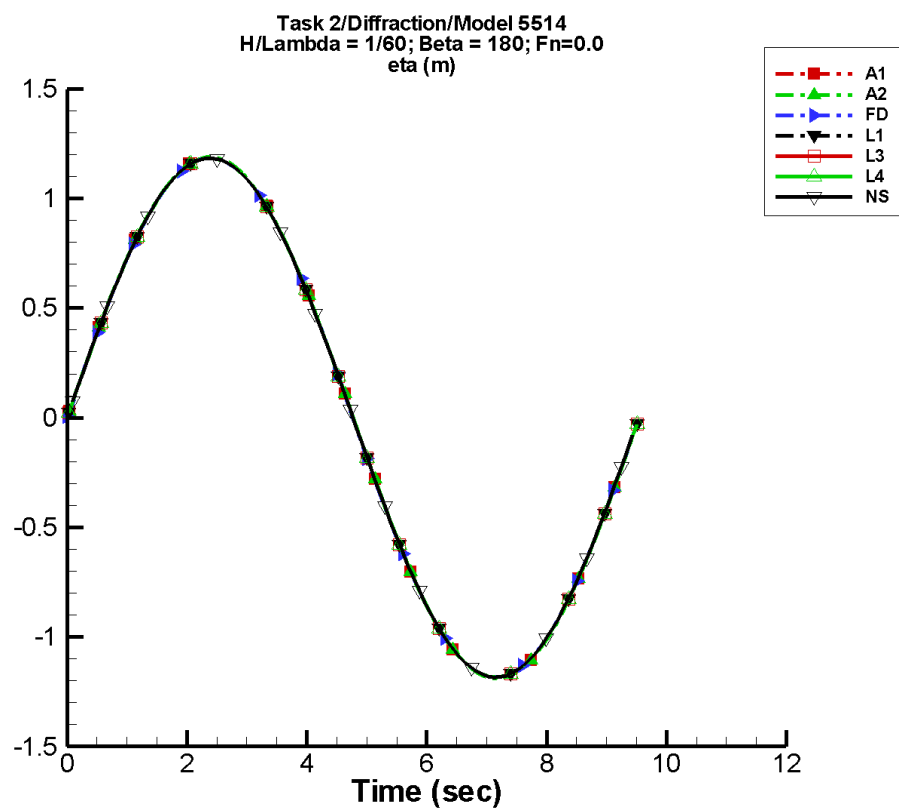
Table H-31. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	-76.7	325.	42	179.	-120
FD	-2.43E-04	7.10	-6	2.19E-04	-80
L1	-1.08E-04	7.11	-4	4.24E-04	90
L3	-1.08E-04	7.11	-4	4.24E-04	90
L4	-1.08E-04	7.11	-4	4.24E-04	90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-32. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	-5.10	-4.76	-5.10	-4.76
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.07	7.07
L3	-7.10	7.10	-7.07	7.07
L4	-7.10	7.10	-7.07	7.07
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-17. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-33. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

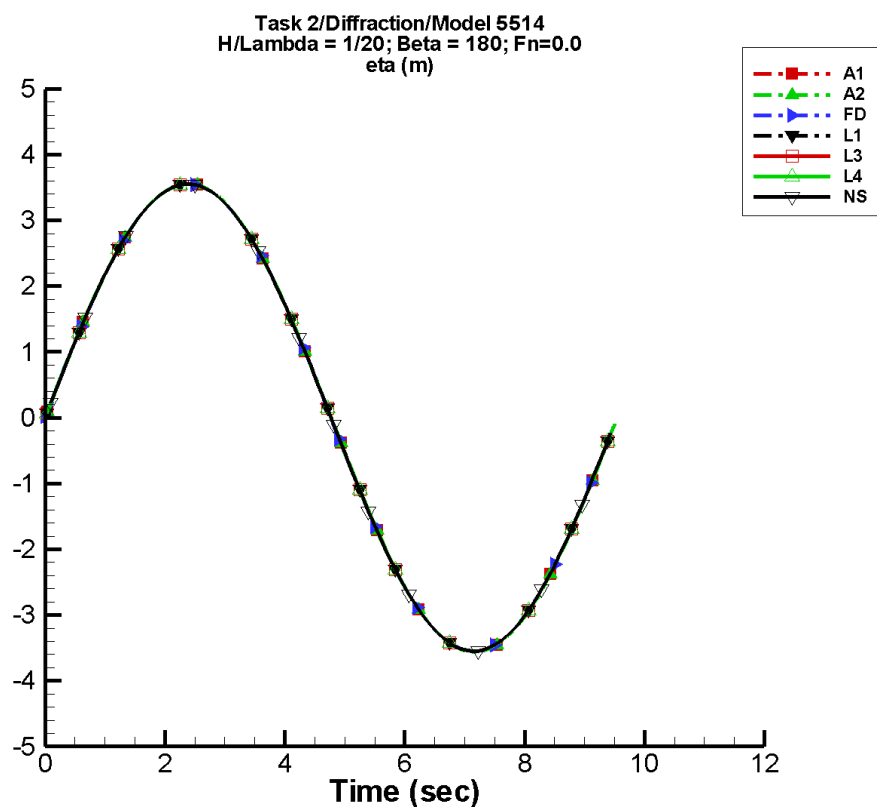
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.63E-05	-80
L1	-4.28E-04	1.18	-4	6.76E-04	-34
L3	-4.28E-04	1.18	-4	6.76E-04	-34
L4	-4.28E-04	1.18	-4	6.76E-04	-34
NF	—	—	—	—	—
NS	-2.59E-04	1.18	0	3.81E-04	-20

Table H-34. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.17



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-18. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

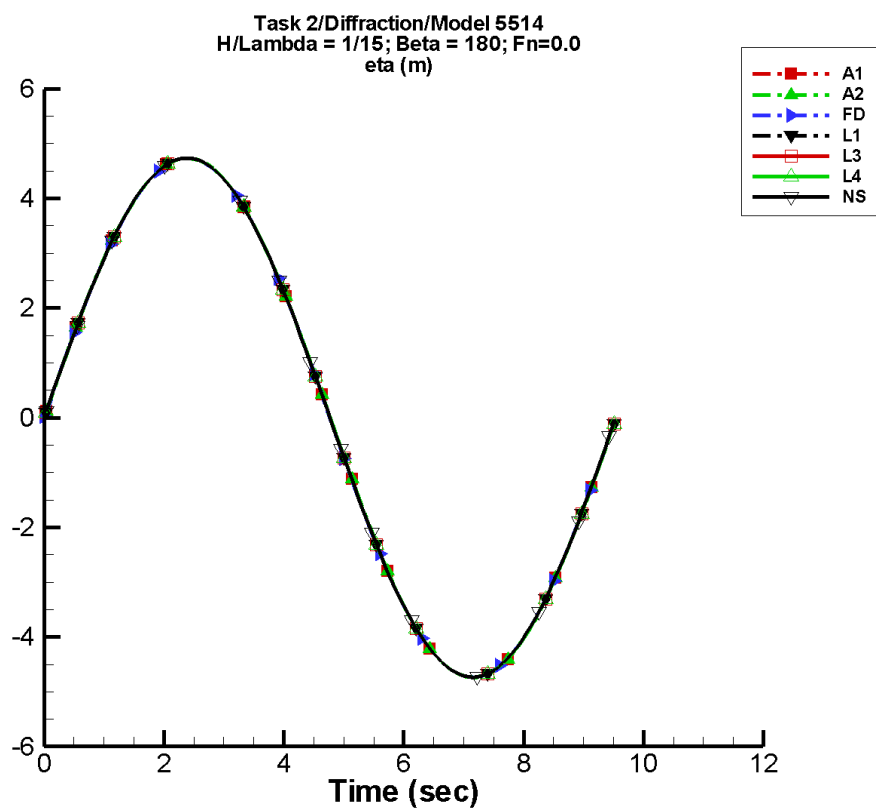
Table H-35. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.22E-04	3.55	-6	1.10E-04	-80
L1	-1.28E-03	3.55	-4	2.03E-03	-34
L3	-1.28E-03	3.55	-4	2.03E-03	-34
L4	-1.28E-03	3.55	-4	2.03E-03	-34
NF	—	—	—	—	—
NS	-7.77E-04	3.55	0	1.14E-03	-20

Table H-36. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.51

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-19. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

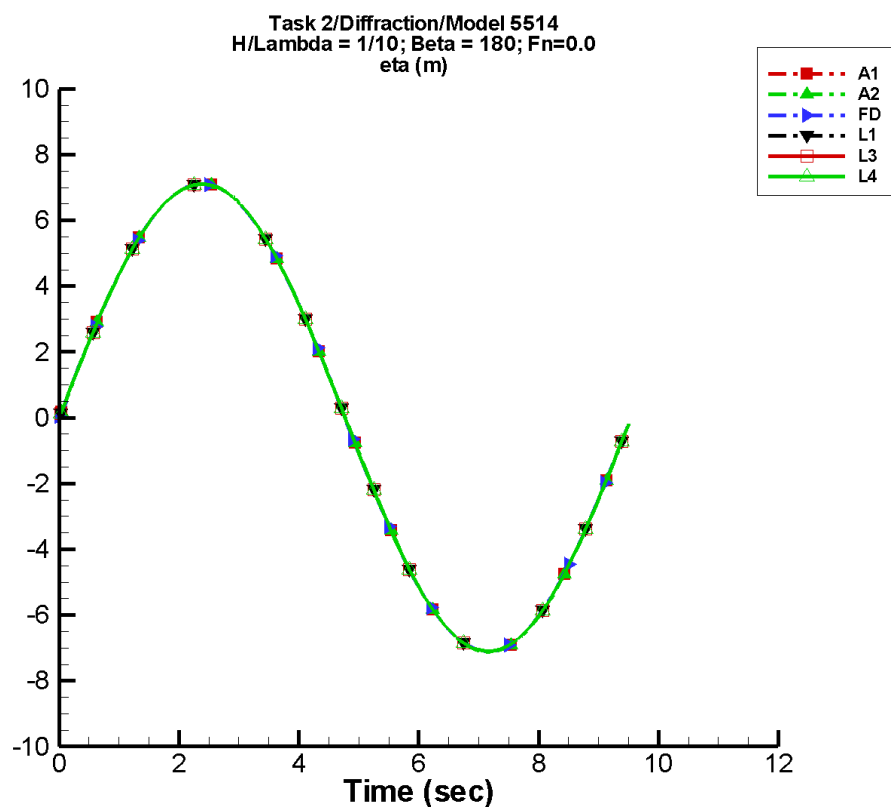
Table H-37. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.47E-04	-80
L1	-1.71E-03	4.74	-4	2.70E-03	-34
L3	-1.71E-03	4.74	-4	2.70E-03	-34
L4	-1.71E-03	4.74	-4	2.70E-03	-34
NF	—	—	—	—	—
NS	-1.00E-03	4.73	0	1.49E-03	-17

Table H-38. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.73	4.74	-4.71	4.71

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-20. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

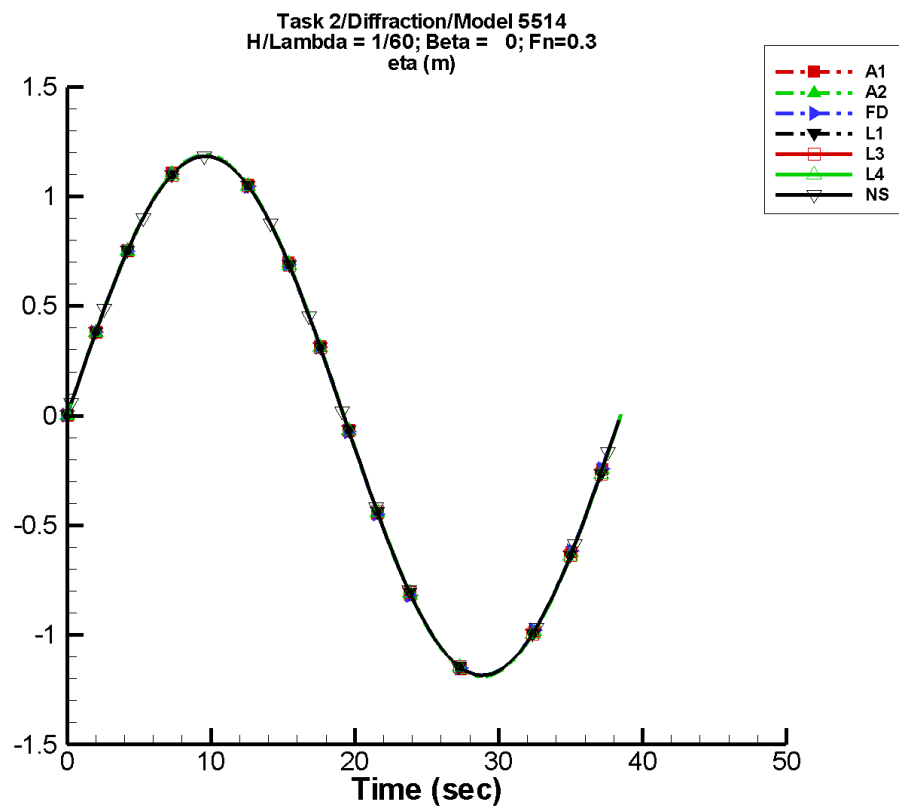
Table H-39. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	-5.18E-03	7.12	-5	8.08E-03	-28
FD	-2.43E-04	7.10	-6	2.19E-04	-80
L1	-2.57E-03	7.10	-4	4.06E-03	-34
L3	-2.57E-03	7.10	-4	4.06E-03	-34
L4	-2.57E-03	7.10	-4	4.06E-03	-34
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-40. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	-7.12	7.12	-7.04	7.04
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.07	7.08
L3	-7.10	7.10	-7.07	7.08
L4	-7.10	7.10	-7.07	7.08
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-21. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-41. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

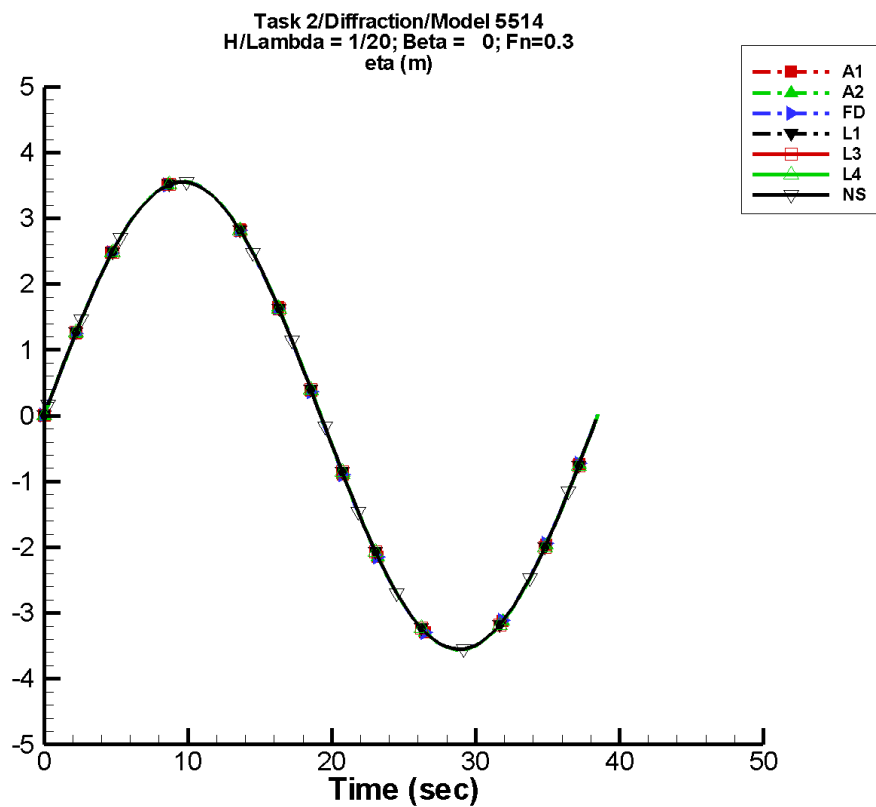
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	9.77E-04	1.19	5	1.46E-03	172
A2	9.77E-04	1.19	5	1.46E-03	172
FD	-8.32E-04	1.18	7	3.10E-03	-140
L1	-6.79E-05	1.18	3	2.56E-03	-171
L3	-6.79E-05	1.18	3	2.56E-03	-171
L4	-6.79E-05	1.18	3	2.56E-03	-171
NF	—	—	—	—	—
NS	1.09E-03	1.18	1	1.62E-03	163

Table H-42. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.19	1.19
A2	-1.19	1.19	-1.19	1.19
FD	-1.18	1.18	-1.18	1.18
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.19



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-22. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

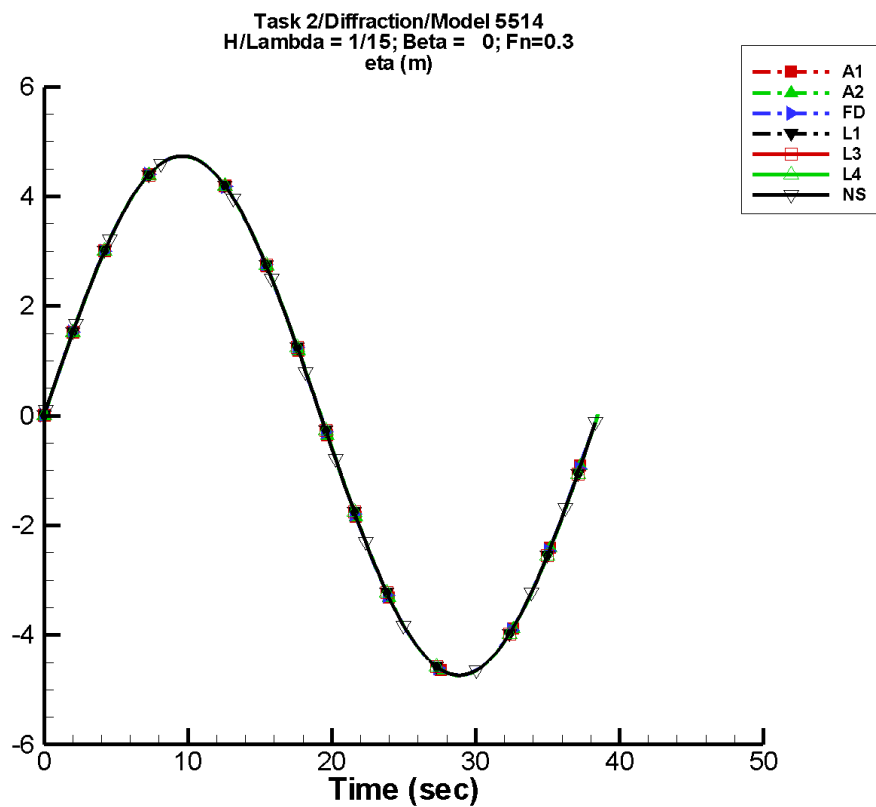
Table H-43. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	2.92E-03	3.56	5	4.36E-03	172
A2	2.92E-03	3.56	5	4.36E-03	172
FD	-2.50E-03	3.55	7	9.30E-03	-140
L1	-2.03E-04	3.55	3	7.67E-03	-171
L3	-2.03E-04	3.55	3	7.67E-03	-171
L4	-2.03E-04	3.55	3	7.67E-03	-171
NF	—	—	—	—	—
NS	3.28E-03	3.55	1	4.87E-03	163

Table H-44. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.56	3.57
A2	-3.56	3.56	-3.56	3.57
FD	-3.55	3.55	-3.55	3.55
L1	-3.55	3.55	-3.55	3.55
L3	-3.55	3.55	-3.55	3.55
L4	-3.55	3.55	-3.55	3.55
NF	—	—	—	—
NS	-3.55	3.55	-3.52	3.56

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-23. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

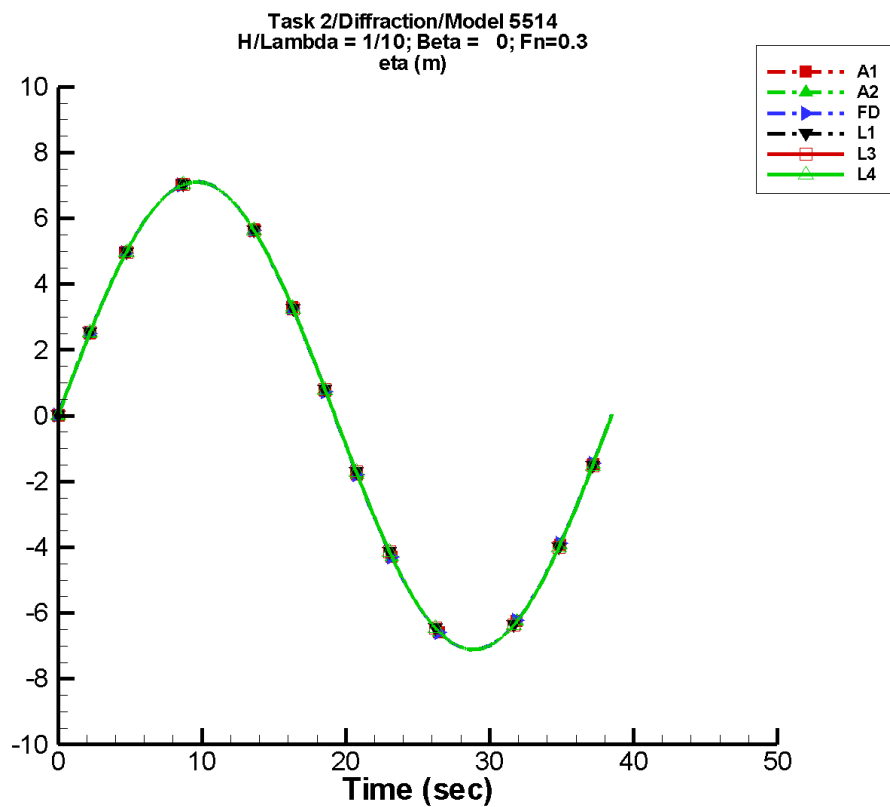
Table H-45. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	3.89E-03	4.74	5	5.81E-03	172
A2	3.89E-03	4.74	5	5.81E-03	172
FD	-3.33E-03	4.73	7	1.24E-02	-140
L1	-2.72E-04	4.73	3	1.02E-02	-171
L3	-2.72E-04	4.73	3	1.02E-02	-171
L4	-2.72E-04	4.73	3	1.02E-02	-171
NF	—	—	—	—	—
NS	4.29E-03	4.74	1	6.41E-03	165

Table H-46. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.74	4.75
A2	-4.74	4.74	-4.74	4.75
FD	-4.73	4.73	-4.73	4.73
L1	-4.73	4.73	-4.73	4.73
L3	-4.73	4.73	-4.73	4.73
L4	-4.73	4.73	-4.73	4.73
NF	—	—	—	—
NS	-4.74	4.74	-4.71	4.75

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-24. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

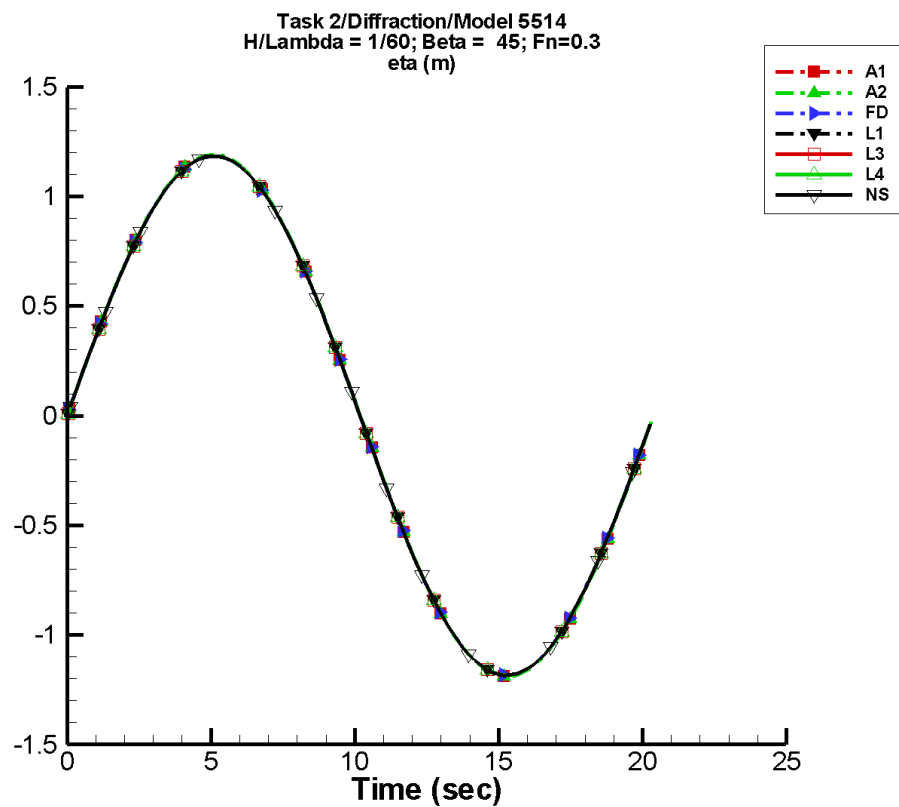
Table H-47. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	5.84E-03	7.12	5	8.72E-03	172
A2	5.84E-03	7.12	5	8.72E-03	172
FD	-4.99E-03	7.10	7	1.86E-02	-140
L1	-4.07E-04	7.10	3	1.53E-02	-171
L3	-4.07E-04	7.10	3	1.53E-02	-171
L4	-4.07E-04	7.10	3	1.53E-02	-171
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-48. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.12	7.13
A2	-7.12	7.12	-7.12	7.13
FD	-7.10	7.10	-7.10	7.10
L1	-7.10	7.10	-7.10	7.10
L3	-7.10	7.10	-7.10	7.10
L4	-7.10	7.10	-7.10	7.10
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-25. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-49. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

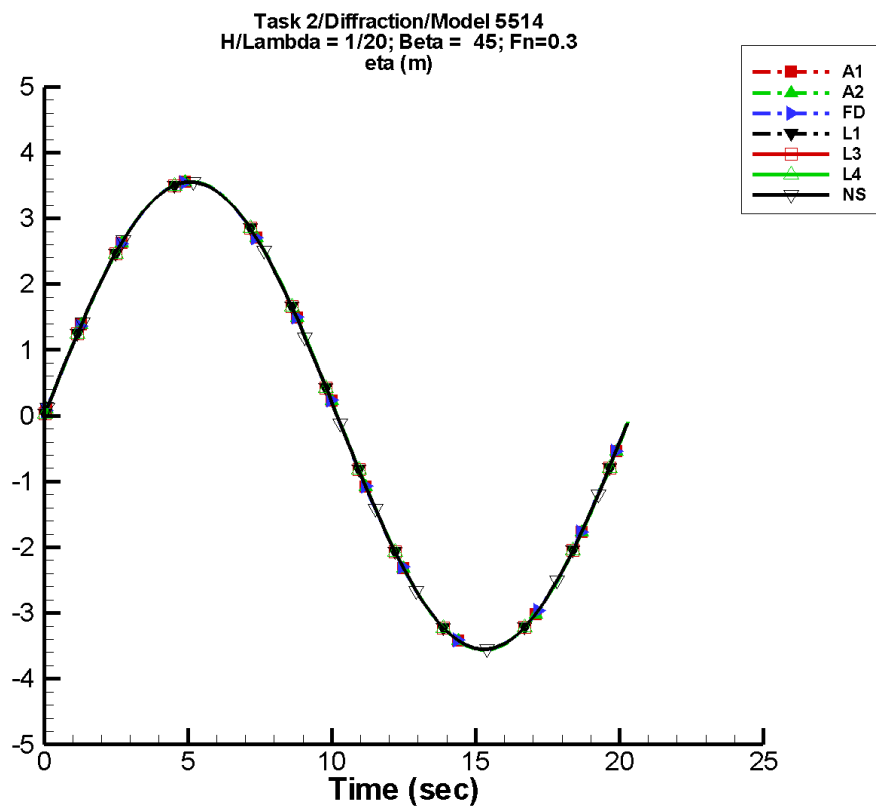
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-1.51E-03	1.19	-8	2.22E-03	-34
A2	-1.51E-03	1.19	-8	2.22E-03	-34
FD	-7.50E-04	1.18	-12	1.81E-03	-48
L1	2.56E-04	1.18	-4	7.71E-04	89
L3	2.56E-04	1.18	-4	7.71E-04	89
L4	2.56E-04	1.18	-4	7.71E-04	89
NF	—	—	—	—	—
NS	-1.05E-03	1.18	-1	1.55E-03	-19

Table H-50. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.19	1.19
A2	-1.19	1.19	-1.19	1.19
FD	-1.18	1.18	-1.18	1.18
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.18



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-26. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

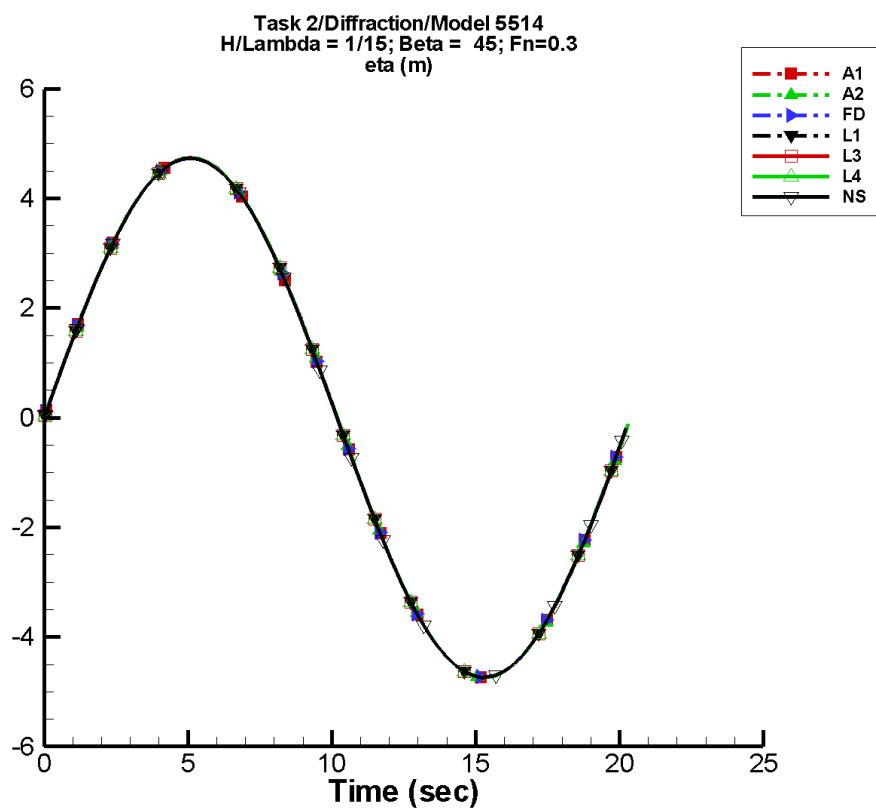
Table H-51. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-4.51E-03	3.56	-8	6.65E-03	-34
A2	-4.51E-03	3.56	-8	6.65E-03	-34
FD	-2.25E-03	3.55	-12	5.43E-03	-48
L1	7.69E-04	3.55	-4	2.31E-03	89
L3	7.69E-04	3.55	-4	2.31E-03	89
L4	7.69E-04	3.55	-4	2.31E-03	89
NF	—	—	—	—	—
NS	-3.14E-03	3.55	-1	4.64E-03	-19

Table H-52. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.55	3.57
A2	-3.56	3.56	-3.55	3.57
FD	-3.55	3.55	-3.54	3.54
L1	-3.55	3.55	-3.55	3.55
L3	-3.55	3.55	-3.55	3.55
L4	-3.55	3.55	-3.55	3.55
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.55

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-27. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

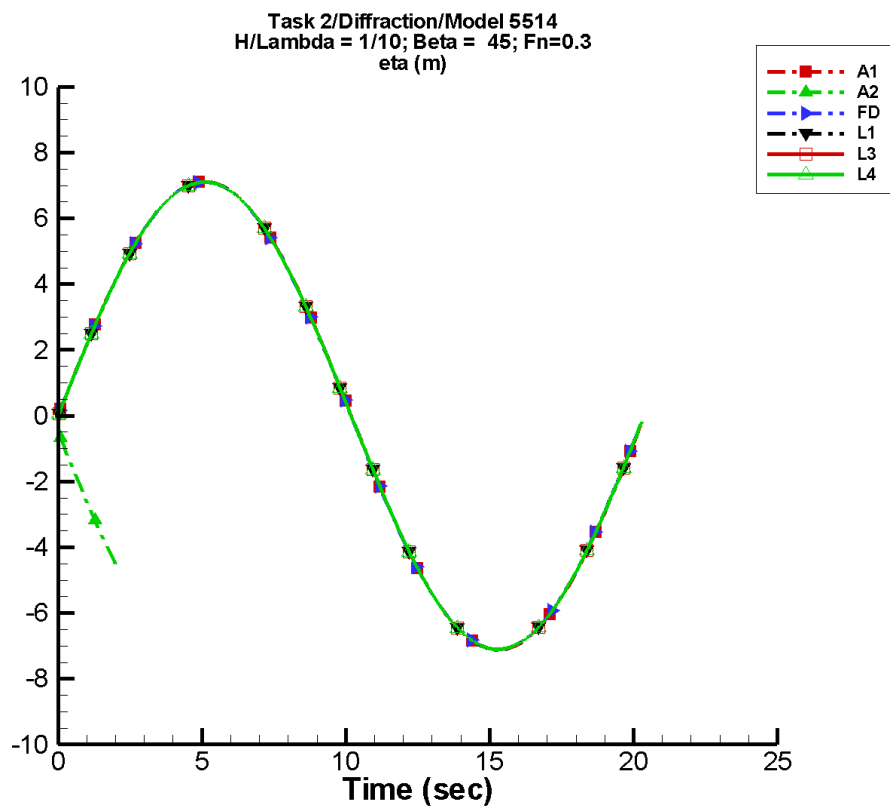
Table H-53. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-6.00E-03	4.74	-8	8.86E-03	-34
A2	1.50E-04	4.75	-5	1.71E-02	-9
FD	-3.00E-03	4.74	-12	7.24E-03	-48
L1	1.03E-03	4.74	-4	3.08E-03	89
L3	1.03E-03	4.74	-4	3.08E-03	89
L4	1.03E-03	4.74	-4	3.08E-03	89
NF	—	—	—	—	—
NS	-4.11E-03	4.73	-1	6.10E-03	-17

Table H-54. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.73	4.75
A2	-4.74	4.74	-4.73	4.73
FD	-4.73	4.73	-4.72	4.72
L1	-4.73	4.73	-4.73	4.73
L3	-4.73	4.73	-4.73	4.73
L4	-4.73	4.73	-4.73	4.73
NF	—	—	—	—
NS	-4.73	4.73	-4.71	4.75

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-28. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

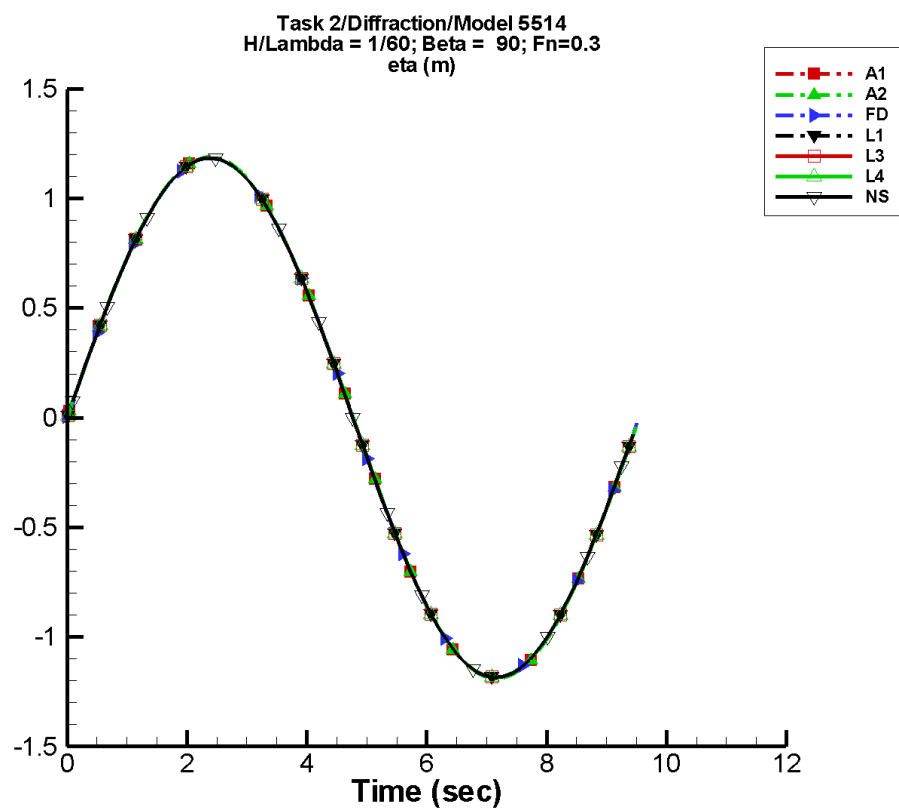
Table H-55. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-9.02E-03	7.12	-8	1.33E-02	-34
A2	1.82	4.03	-85	4.34	156
FD	-4.50E-03	7.10	-12	1.09E-02	-48
L1	1.54E-03	7.11	-4	4.63E-03	89
L3	1.54E-03	7.11	-4	4.63E-03	89
L4	1.54E-03	7.11	-4	4.63E-03	89
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-56. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.10	7.14
A2	-4.64	2.78	-4.54	2.74
FD	-7.10	7.10	-7.08	7.08
L1	-7.10	7.10	-7.10	7.10
L3	-7.10	7.10	-7.10	7.10
L4	-7.10	7.10	-7.10	7.10
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-29. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-57. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

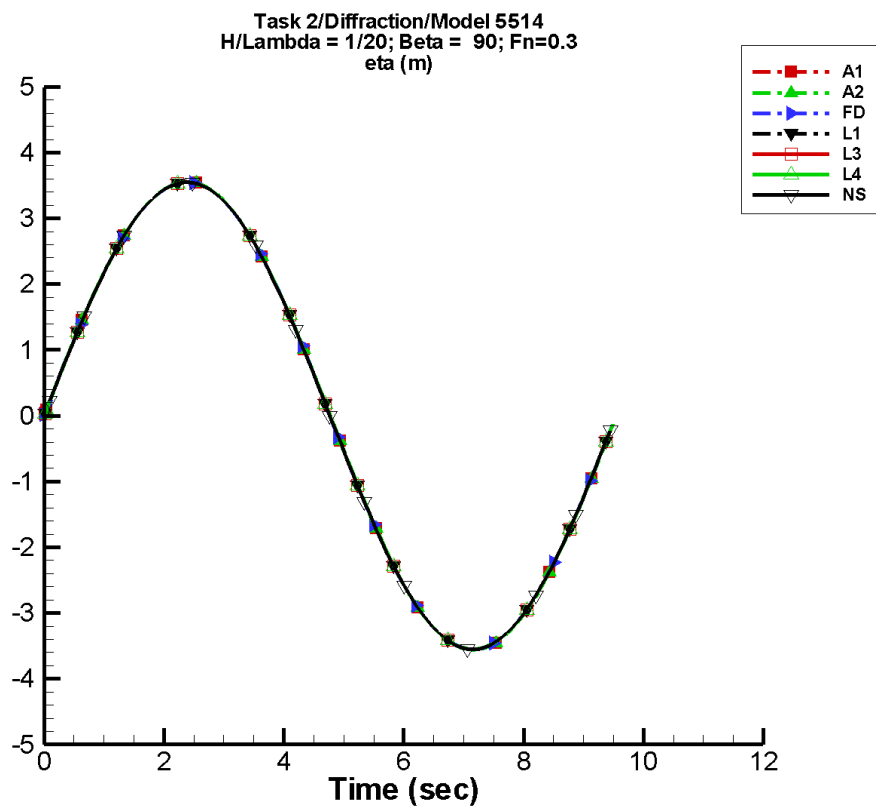
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-8.65E-04	1.19	-5	1.35E-03	-28
A2	-8.65E-04	1.19	-5	1.35E-03	-28
FD	-4.06E-05	1.18	-6	3.65E-05	-80
L1	5.20E-04	1.18	-4	9.35E-04	29
L3	5.20E-04	1.18	-4	9.35E-04	29
L4	5.20E-04	1.18	-4	9.35E-04	29
NF	—	—	—	—	—
NS	-2.60E-04	1.18	0	3.82E-04	-20

Table H-58. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.18	1.18
A2	-1.19	1.19	-1.18	1.18
FD	-1.18	1.18	-1.17	1.17
L1	-1.18	1.18	-1.18	1.18
L3	-1.18	1.18	-1.18	1.18
L4	-1.18	1.18	-1.18	1.18
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.18



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Data identically zero, insufficient, or not available from NFA.

Figure H-30. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

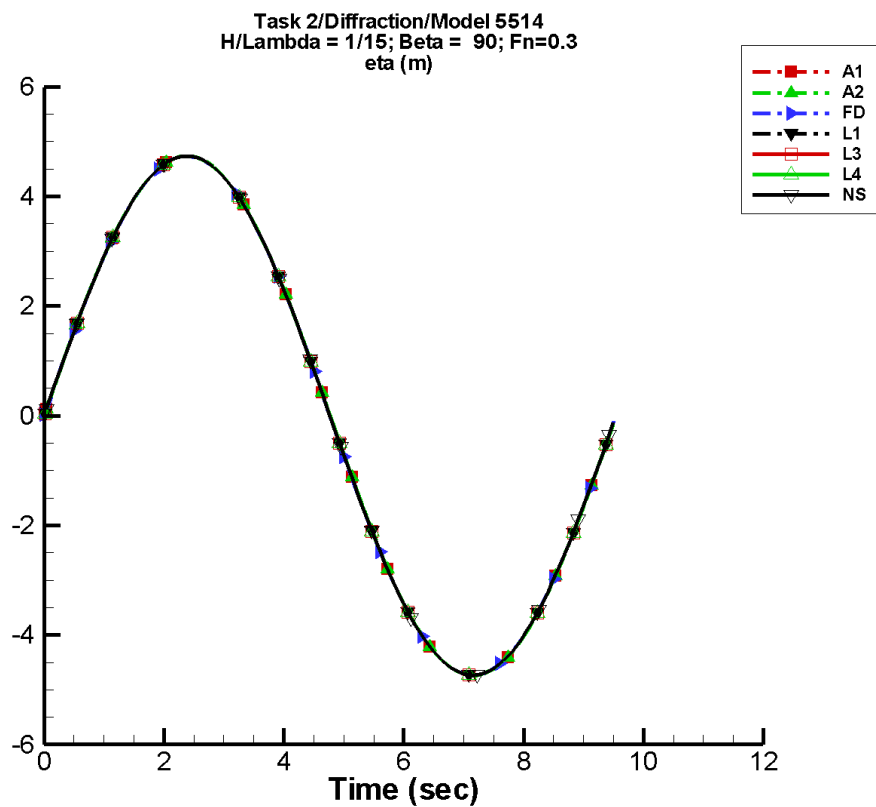
Table H-59. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-2.59E-03	3.56	-5	4.04E-03	-28
A2	-2.59E-03	3.56	-5	4.04E-03	-28
FD	-1.21E-04	3.55	-6	1.10E-04	-80
L1	1.56E-03	3.55	-4	2.80E-03	29
L3	1.56E-03	3.55	-4	2.80E-03	29
L4	1.56E-03	3.55	-4	2.80E-03	29
NF	—	—	—	—	—
NS	-7.80E-04	3.55	0	1.15E-03	-20

Table H-60. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.52	3.52
A2	-3.56	3.56	-3.52	3.52
FD	-3.55	3.55	-3.51	3.51
L1	-3.55	3.55	-3.54	3.54
L3	-3.55	3.55	-3.54	3.54
L4	-3.55	3.55	-3.54	3.54
NF	—	—	—	—
NS	-3.55	3.55	-3.52	3.54

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-31. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

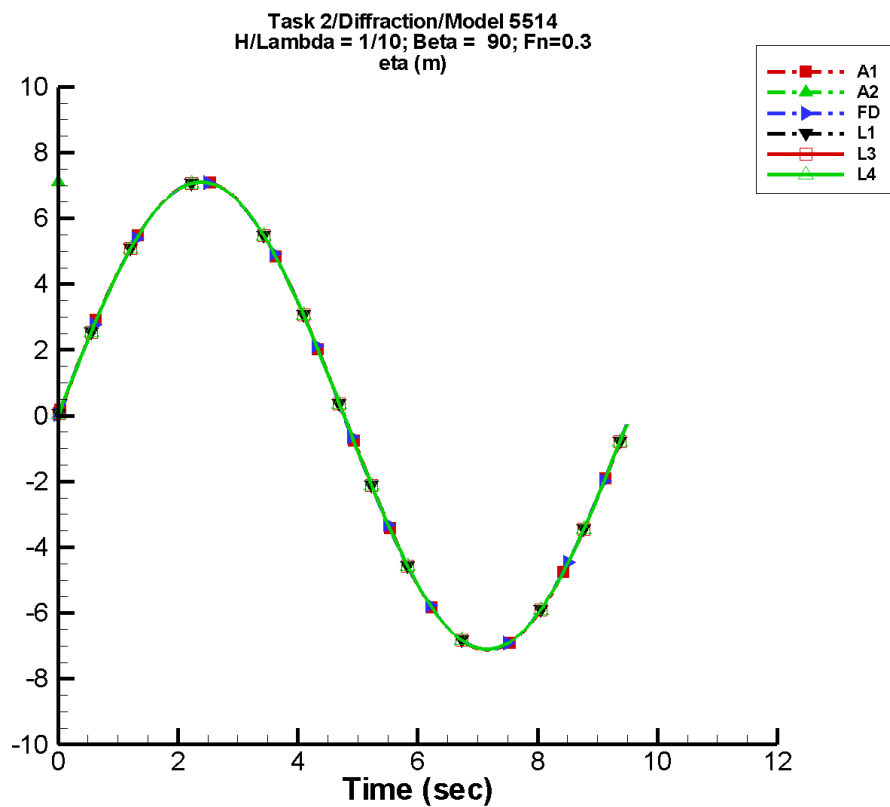
Table H-61. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.45E-03	4.74	-5	5.38E-03	-28
A2	-3.45E-03	4.74	-5	5.38E-03	-28
FD	-1.62E-04	4.74	-6	1.46E-04	-80
L1	2.08E-03	4.74	-4	3.74E-03	29
L3	2.08E-03	4.74	-4	3.74E-03	29
L4	2.08E-03	4.74	-4	3.74E-03	29
NF	—	—	—	—	—
NS	-1.01E-03	4.73	0	1.49E-03	-17

Table H-62. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.69	4.69
A2	-4.74	4.74	-4.69	4.69
FD	-4.73	4.73	-4.68	4.68
L1	-4.73	4.73	-4.72	4.72
L3	-4.73	4.73	-4.72	4.72
L4	-4.73	4.73	-4.72	4.72
NF	—	—	—	—
NS	-4.74	4.74	-4.71	4.73

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-32. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

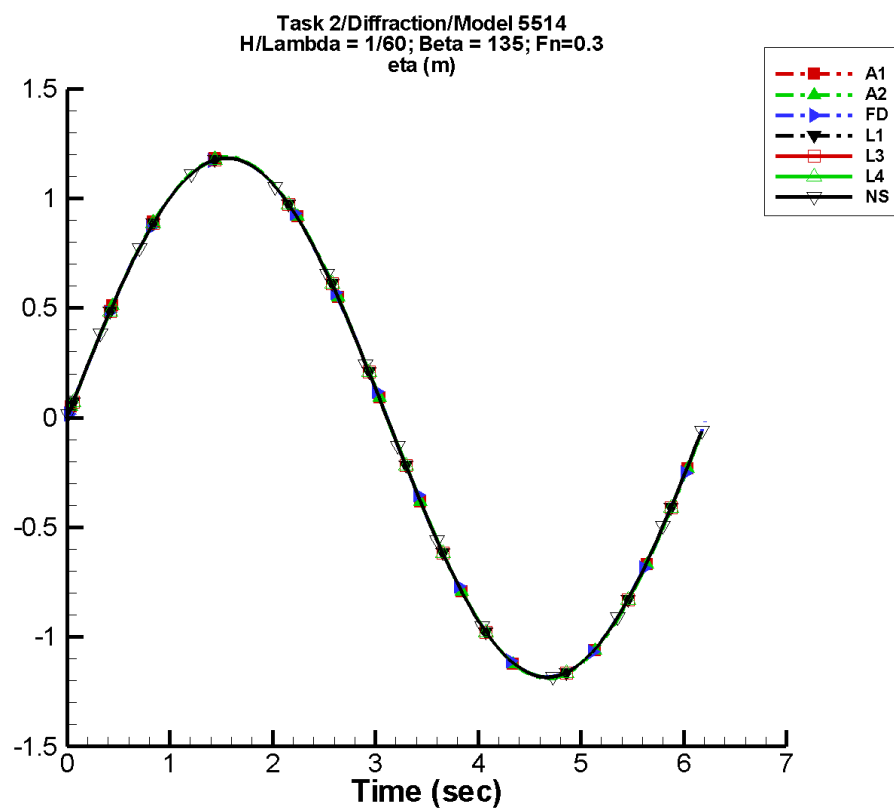
Table H-63. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-5.18E-03	7.12	-5	8.08E-03	-28
A2	-9.44	4.45	-17	12.4	-80
FD	-2.44E-04	7.10	-6	2.19E-04	-80
L1	3.12E-03	7.10	-4	5.61E-03	29
L3	3.12E-03	7.10	-4	5.61E-03	29
L4	3.12E-03	7.10	-4	5.61E-03	29
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-64. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-7.04	7.04
A2	7.09	7.12	7.09	7.12
FD	-7.10	7.10	-7.02	7.02
L1	-7.10	7.10	-7.08	7.07
L3	-7.10	7.10	-7.08	7.07
L4	-7.10	7.10	-7.08	7.07
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-33. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-65. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

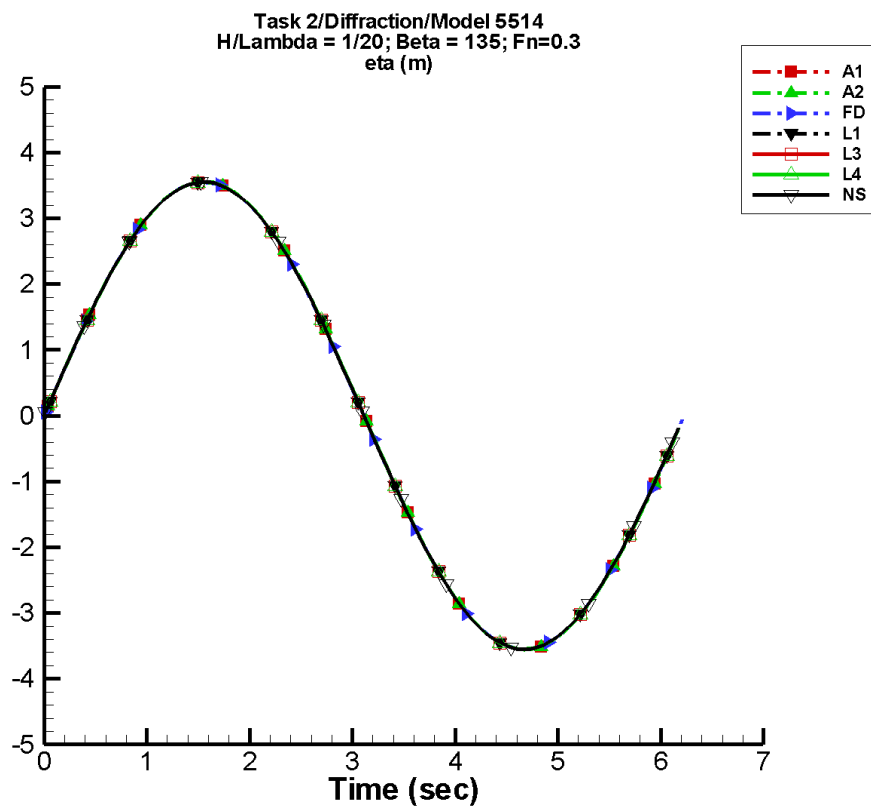
Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-1.21E-03	1.19	-7	1.89E-03	-32
A2	-1.21E-03	1.19	-7	1.89E-03	-32
FD	6.42E-04	1.18	-22	8.96E-04	-7
L1	-6.84E-04	1.18	-10	1.48E-03	-46
L3	-6.84E-04	1.18	-10	1.48E-03	-46
L4	-6.84E-04	1.18	-10	1.48E-03	-46
NF	—	—	—	—	—
NS	-5.42E-04	1.18	-1	8.03E-04	-16

Table H-66. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.16	1.16
A2	-1.19	1.19	-1.16	1.16
FD	-1.18	1.18	-1.17	1.15
L1	-1.18	1.18	-1.17	1.17
L3	-1.18	1.18	-1.17	1.17
L4	-1.18	1.18	-1.17	1.17
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.17



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-34. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

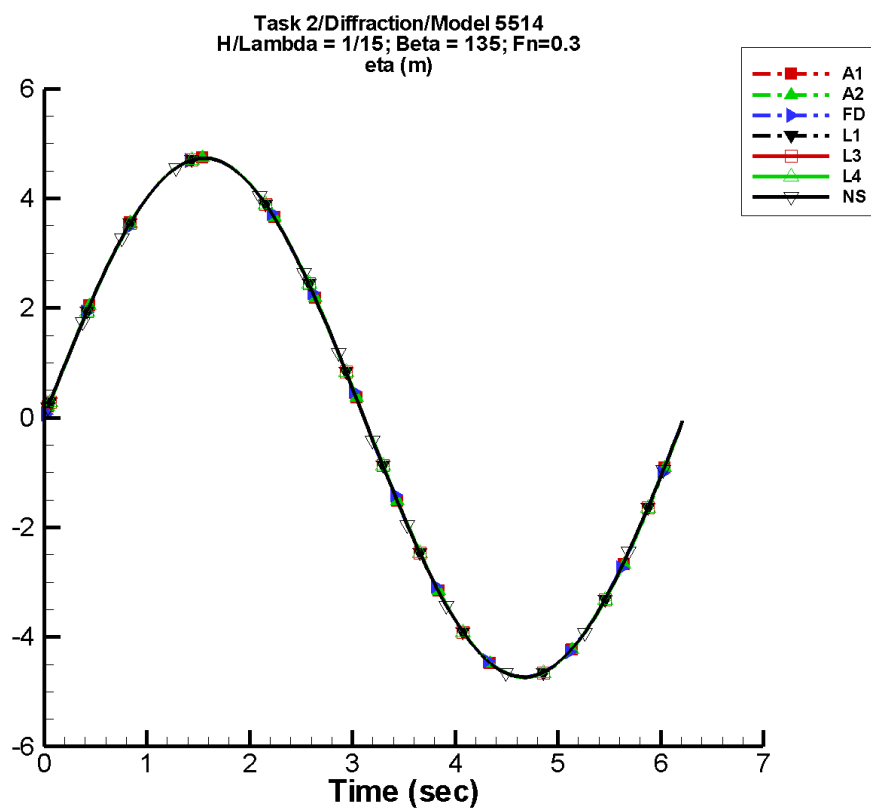
Table H-67. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-3.62E-03	3.56	-7	5.66E-03	-32
A2	-3.62E-03	3.56	-7	5.66E-03	-32
FD	1.93E-03	3.55	-22	2.69E-03	-6
L1	-2.05E-03	3.55	-10	4.45E-03	-46
L3	-2.05E-03	3.55	-10	4.45E-03	-46
L4	-2.05E-03	3.55	-10	4.45E-03	-46
NF	—	—	—	—	—
NS	-1.62E-03	3.55	-1	2.41E-03	-16

Table H-68. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.47	3.46
A2	-3.56	3.56	-3.47	3.46
FD	-3.55	3.55	-3.50	3.46
L1	-3.55	3.55	-3.52	3.52
L3	-3.55	3.55	-3.52	3.52
L4	-3.55	3.55	-3.52	3.52
NF	—	—	—	—
NS	-3.55	3.55	-3.51	3.52

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-35. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

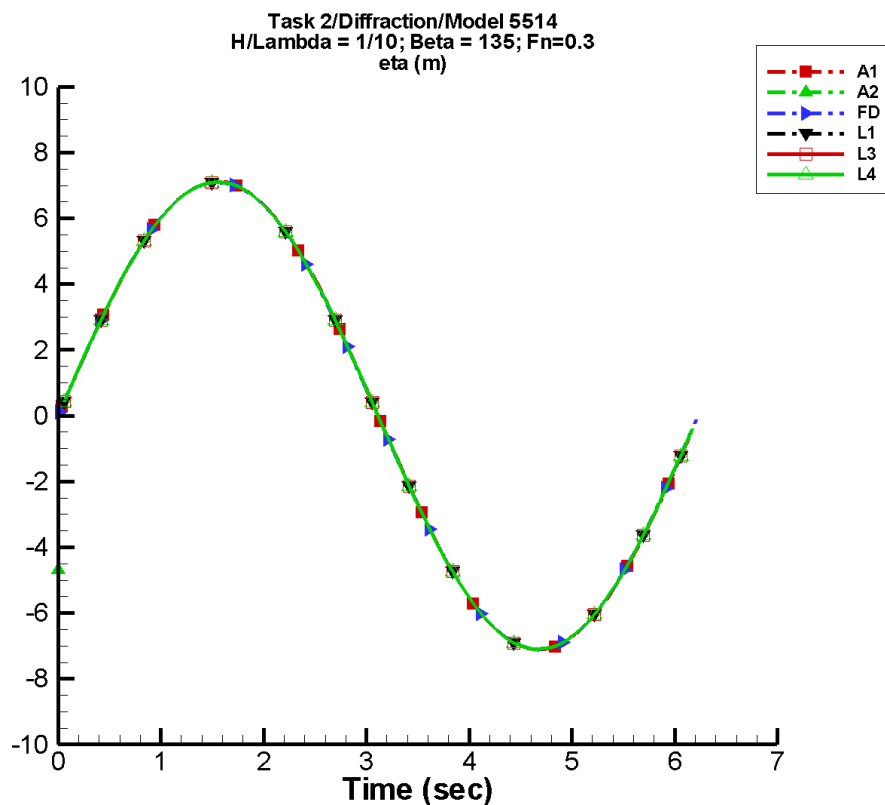
Table H-69. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-4.82E-03	4.74	-7	7.54E-03	-32
A2	-4.82E-03	4.74	-7	7.54E-03	-32
FD	2.57E-03	4.73	-22	3.58E-03	-6
L1	-2.73E-03	4.74	-10	5.93E-03	-46
L3	-2.73E-03	4.74	-10	5.93E-03	-46
L4	-2.73E-03	4.74	-10	5.93E-03	-46
NF	—	—	—	—	—
NS	-2.24E-03	4.73	-1	3.30E-03	-19

Table H-70. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.62	4.61
A2	-4.74	4.74	-4.62	4.61
FD	-4.73	4.73	-4.66	4.61
L1	-4.73	4.73	-4.69	4.69
L3	-4.73	4.73	-4.69	4.69
L4	-4.73	4.73	-4.69	4.69
NF	—	—	—	—
NS	-4.73	4.73	-4.71	4.71

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-36. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

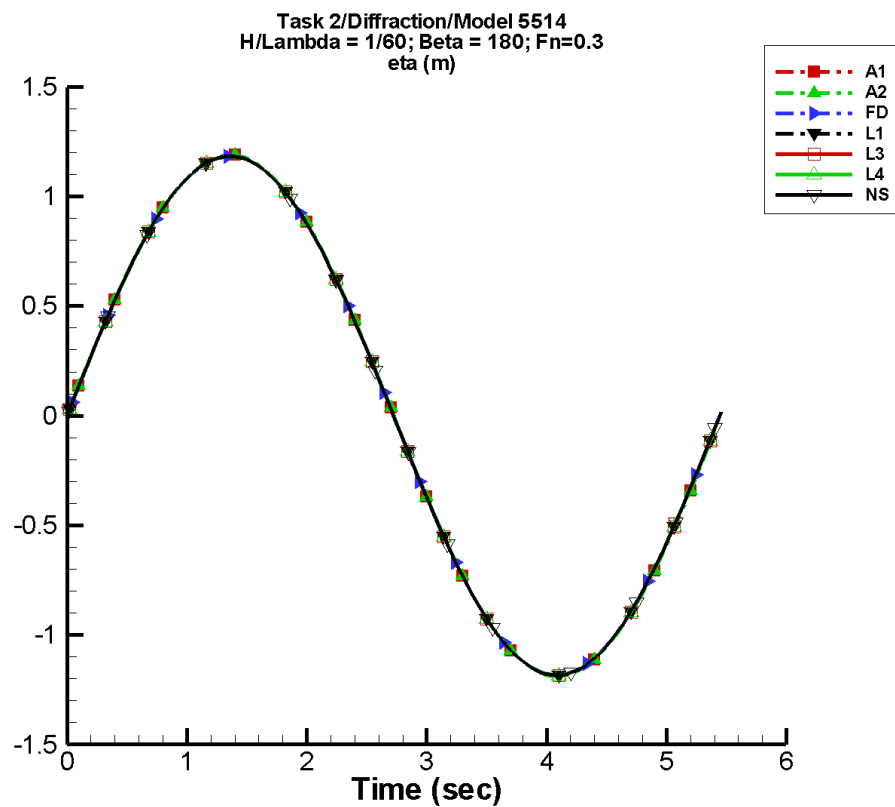
Table H-71. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	-7.24E-03	7.12	-7	1.13E-02	-32
A2	6.18	9.88	-19	2.42	3
FD	3.85E-03	7.10	-22	5.38E-03	-6
L1	-4.10E-03	7.10	-10	8.89E-03	-46
L3	-4.10E-03	7.10	-10	8.89E-03	-46
L4	-4.10E-03	7.10	-10	8.89E-03	-46
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-72. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.12	-6.93	6.93
A2	-5.20	-4.68	-5.20	-4.68
FD	-7.09	7.10	-6.99	6.92
L1	-7.10	7.10	-7.04	7.03
L3	-7.10	7.10	-7.04	7.03
L4	-7.10	7.10	-7.04	7.03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-37. Time history of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-73. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	1.15E-03	1.19	7	2.25E-03	166
A2	1.15E-03	1.19	7	2.25E-03	166
FD	-2.47E-04	1.18	92	5.62E-03	10
L1	-1.95E-03	1.18	23	2.85E-03	-100
L3	-1.95E-03	1.18	23	2.85E-03	-100
L4	-1.95E-03	1.18	23	2.85E-03	-100
NF	—	—	—	—	—
NS	1.94E-03	1.18	2	2.92E-03	167

Table H-74. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-1.19	1.19	-1.15	1.15
A2	-1.19	1.19	-1.15	1.15
FD	-1.18	1.18	-1.14	1.14
L1	-1.18	1.18	-1.19	1.17
L3	-1.18	1.18	-1.19	1.17
L4	-1.18	1.18	-1.19	1.17
NF	—	—	—	—
NS	-1.18	1.18	-1.17	1.17



# TASK 2/0-DOF IN WAVES/MODEL 5514

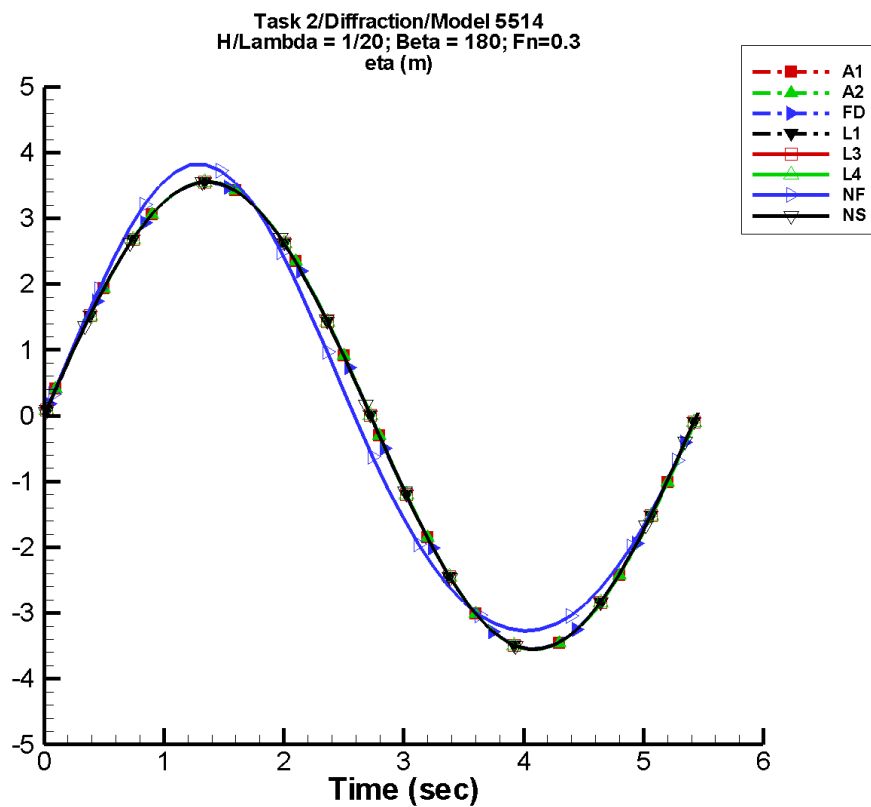


Figure H-38. Time history of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-75. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	3.45E-03	3.56	7	6.74E-03	166
A2	3.45E-03	3.56	7	6.74E-03	166
FD	-7.42E-04	3.54	92	1.69E-02	10
L1	-5.86E-03	3.55	23	8.54E-03	-100
L3	-5.86E-03	3.55	23	8.54E-03	-100
L4	-5.86E-03	3.55	23	8.54E-03	-100
NF	-2.57E-03	3.55	86	0.283	81
NS	5.82E-03	3.55	2	8.75E-03	167

Table H-76. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-3.56	3.56	-3.44	3.44
A2	-3.56	3.56	-3.44	3.44
FD	-3.55	3.55	-3.43	3.43
L1	-3.55	3.55	-3.56	3.51
L3	-3.55	3.55	-3.56	3.51
L4	-3.55	3.55	-3.56	3.51
NF	-3.27	3.82	-3.14	3.58
NS	-3.55	3.55	-3.52	3.52

# TASK 2/0-DOF IN WAVES/MODEL 5514

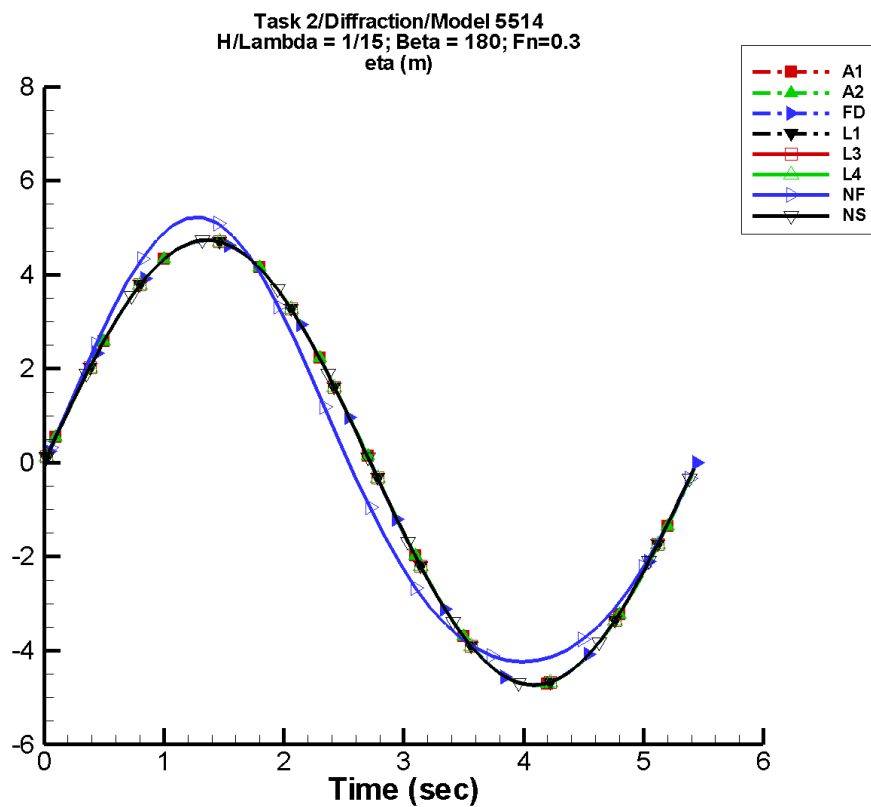


Figure H-39. Time history of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

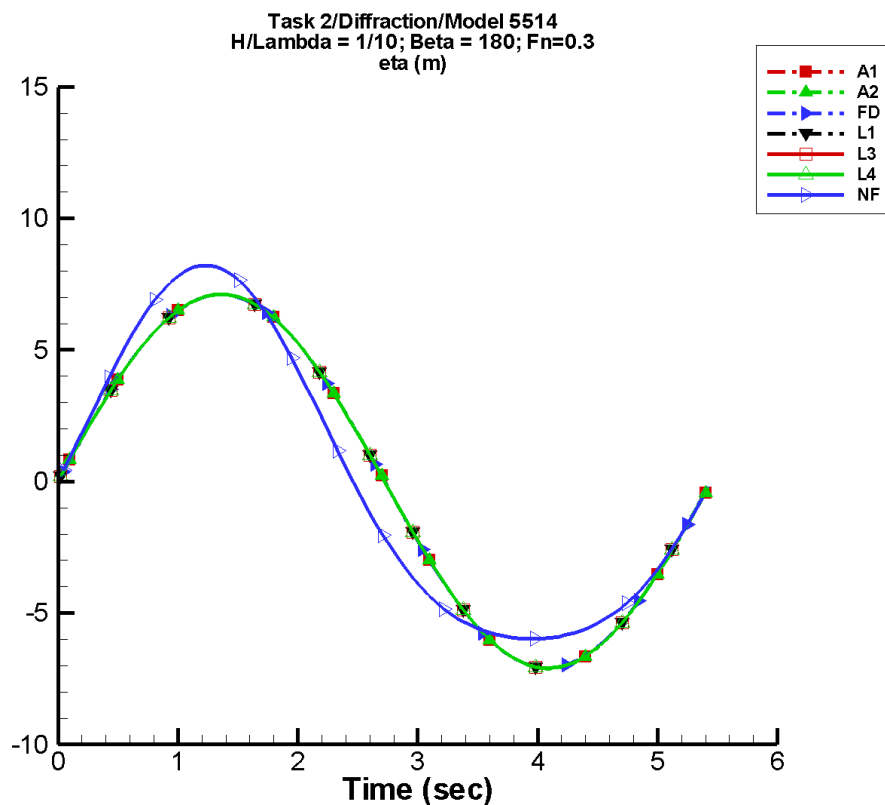
Table H-77. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	4.59E-03	4.74	7	8.97E-03	166
A2	4.59E-03	4.74	7	8.97E-03	166
FD	-9.89E-04	4.73	92	2.25E-02	10
L1	-7.81E-03	4.73	23	1.14E-02	-100
L3	-7.81E-03	4.73	23	1.14E-02	-100
L4	-7.81E-03	4.73	23	1.14E-02	-100
NF	-3.62E-03	4.73	87	0.501	83
NS	7.90E-03	4.74	2	1.18E-02	166

Table H-78. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-4.74	4.74	-4.58	4.58
A2	-4.74	4.74	-4.58	4.58
FD	-4.73	4.73	-4.58	4.57
L1	-4.73	4.73	-4.74	4.68
L3	-4.73	4.73	-4.74	4.68
L4	-4.73	4.73	-4.74	4.68
NF	-4.24	5.22	-4.09	4.87
NS	-4.73	4.73	-4.71	4.71

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-40. Time history of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

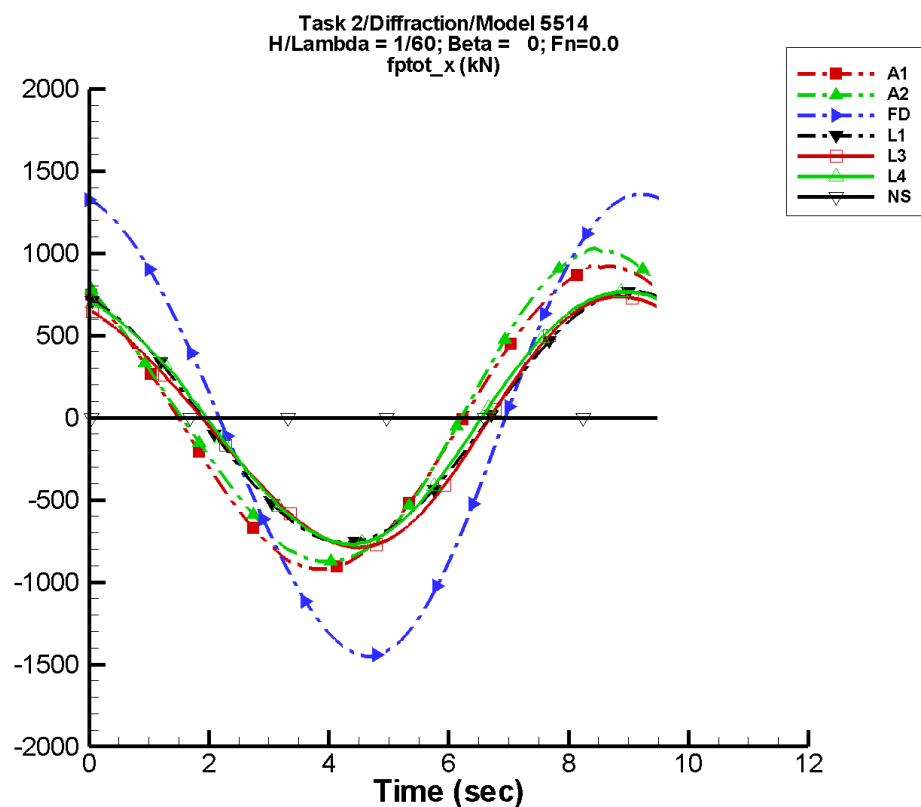
Table H-79. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (m)	$a_1$ (m)	$\Phi_1$ (deg)	$a_2$ (m)	$\Phi_2$ (deg)
A1	6.90E-03	7.12	7	1.35E-02	166
A2	6.90E-03	7.12	7	1.35E-02	166
FD	-1.48E-03	7.09	92	3.37E-02	10
L1	-1.17E-02	7.10	23	1.71E-02	-100
L3	-1.17E-02	7.10	23	1.71E-02	-100
L4	-1.17E-02	7.10	23	1.71E-02	-100
NF	-1.71E-02	7.11	69	1.14	49
NS	—	—	—	—	—

Table H-80. Minimum and maximum of  $\eta$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (m)	Maximum (m)	Minimum (m)	Maximum (m)
A1	-7.12	7.11	-6.88	6.87
A2	-7.12	7.11	-6.88	6.87
FD	-7.10	7.10	-6.87	6.86
L1	-7.10	7.10	-7.12	7.02
L3	-7.10	7.10	-7.12	7.02
L4	-7.10	7.10	-7.12	7.02
NF	-5.98	8.21	-5.95	8.06
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-41. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-81. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

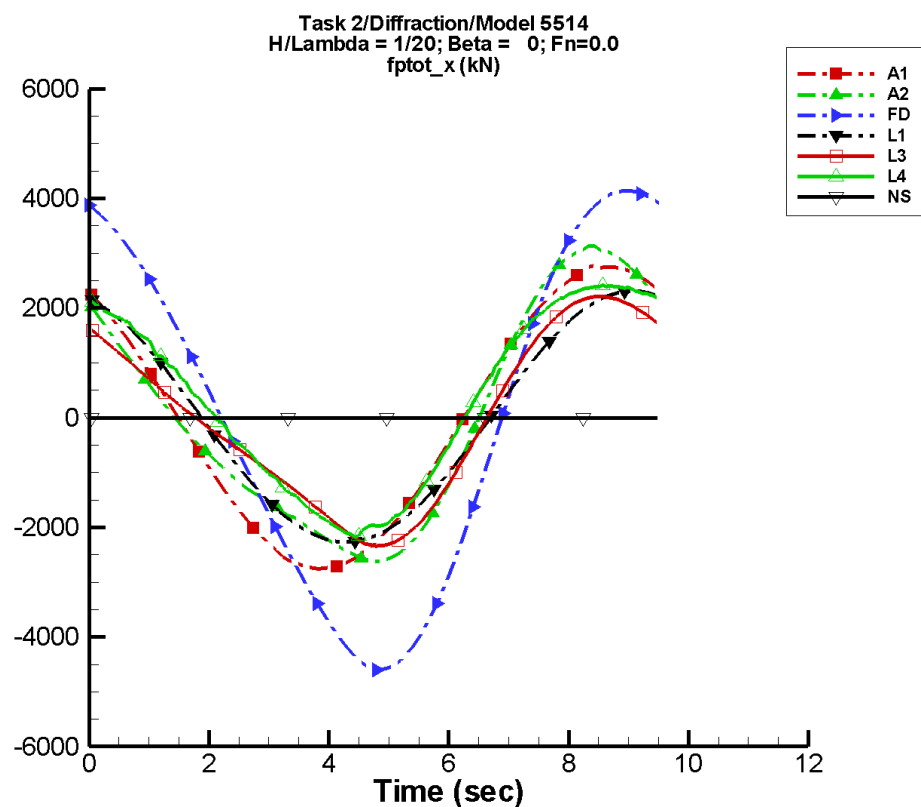
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.347	919.	119	0.366	161
A2	49.8	939.	119	50.0	-144
FD	-21.5	1.40E+03	92	58.0	-150
L1	-0.491	762.	104	2.75	125
L3	-16.4	754.	104	55.1	-141
L4	22.2	766.	106	33.5	-101
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-82. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-920.	928.	-911.	913.
A2	-875.	1.03E+03	-866.	1.01E+03
FD	-1.45E+03	1.36E+03	-1.43E+03	1.34E+03
L1	-759.	766.	-756.	763.
L3	-789.	737.	-785.	734.
L4	-774.	766.	-766.	763.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-42. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

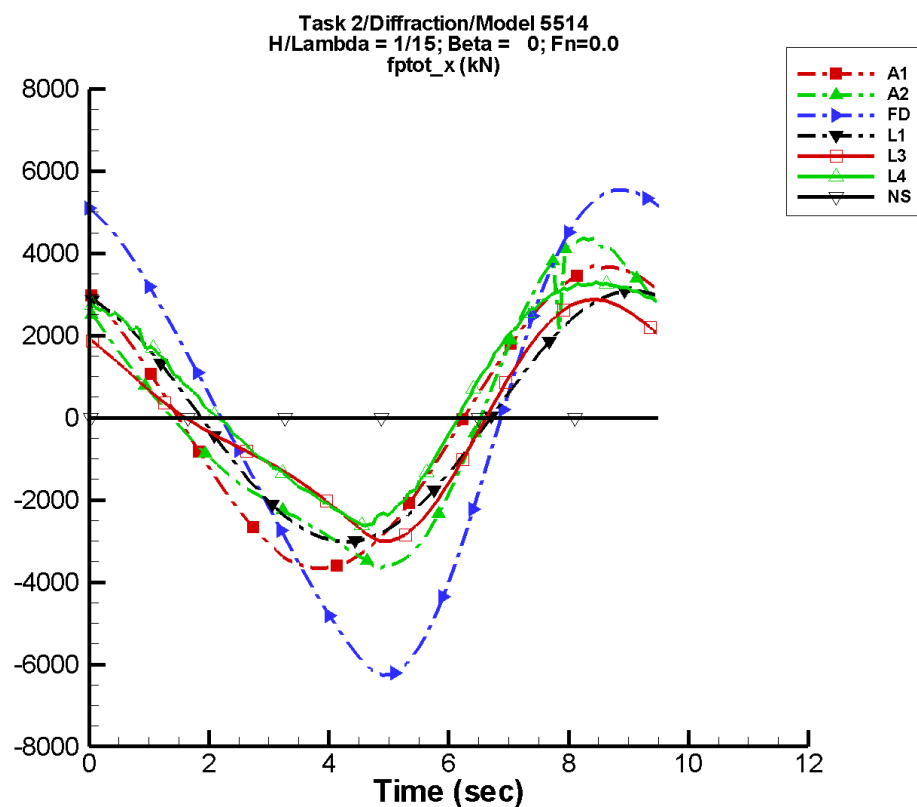
Table H–83. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.04	2.75E+03	119	1.09	161
A2	27.0	2.68E+03	113	585.	-163
FD	-15.3	4.26E+03	92	499.	-156
L1	-6.51	2.28E+03	104	23.4	118
L3	-21.8	2.08E+03	106	454.	-151
L4	329.	2.22E+03	109	254.	-109
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–84. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.75E+03	2.78E+03	-2.72E+03	2.73E+03
A2	-2.62E+03	3.14E+03	-2.57E+03	3.05E+03
FD	-4.60E+03	4.14E+03	-4.52E+03	4.09E+03
L1	-2.27E+03	2.31E+03	-2.26E+03	2.30E+03
L3	-2.34E+03	2.21E+03	-2.32E+03	2.20E+03
L4	-2.18E+03	2.42E+03	-2.09E+03	2.40E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-43. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

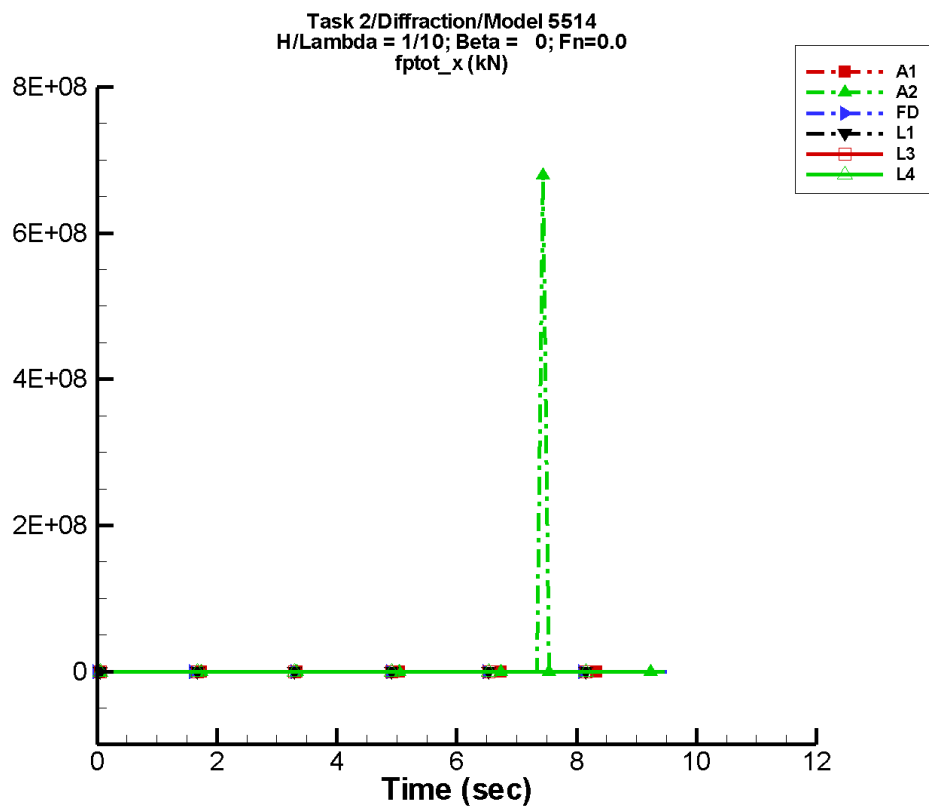
Table H–85. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.38	3.66E+03	119	1.46	161
A2	-7.71	3.58E+03	113	919.	-163
FD	-8.95	5.67E+03	93	851.	-160
L1	-12.0	3.05E+03	104	41.4	117
L3	-26.4	2.57E+03	107	726.	-156
L4	600.	2.84E+03	111	387.	-116
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–86. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.67E+03	3.70E+03	-3.63E+03	3.64E+03
A2	-3.67E+03	4.36E+03	-3.54E+03	4.19E+03
FD	-6.26E+03	5.54E+03	-6.14E+03	5.49E+03
L1	-3.02E+03	3.08E+03	-3.01E+03	3.07E+03
L3	-3.00E+03	2.87E+03	-2.97E+03	2.85E+03
L4	-2.64E+03	3.30E+03	-2.54E+03	3.25E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-44. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

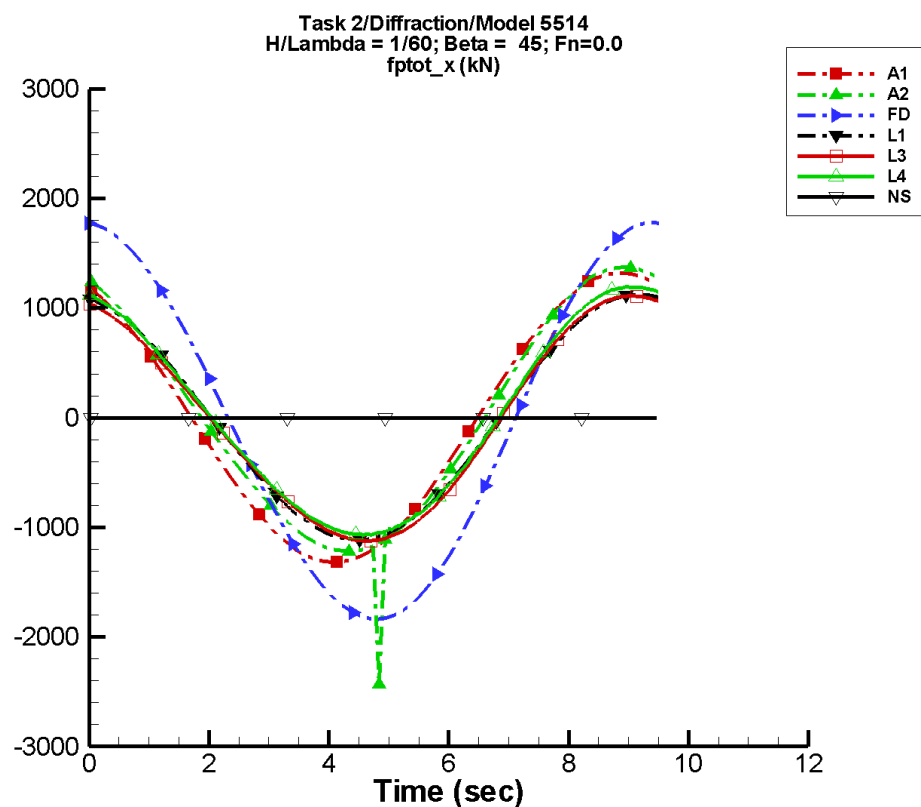
Table H-87. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.07	5.50E+03	119	2.19	161
A2	7.70E+06	1.41E+07	160	1.32E+07	-119
FD	10.9	8.40E+03	92	1.37E+03	-172
L1	-28.1	4.57E+03	104	92.6	116
L3	-36.1	3.14E+03	108	1.04E+03	-168
L4	1.29E+03	3.72E+03	115	347.	-118
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-88. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.51E+03	5.55E+03	-5.45E+03	5.46E+03
A2	-5.92E+03	6.79E+08	-7.74E+06	9.05E+07
FD	-9.36E+03	8.24E+03	-9.16E+03	8.17E+03
L1	-4.51E+03	4.65E+03	-4.49E+03	4.63E+03
L3	-3.80E+03	3.66E+03	-3.75E+03	3.63E+03
L4	-3.74E+03	4.71E+03	-2.76E+03	4.62E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-45. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-89. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

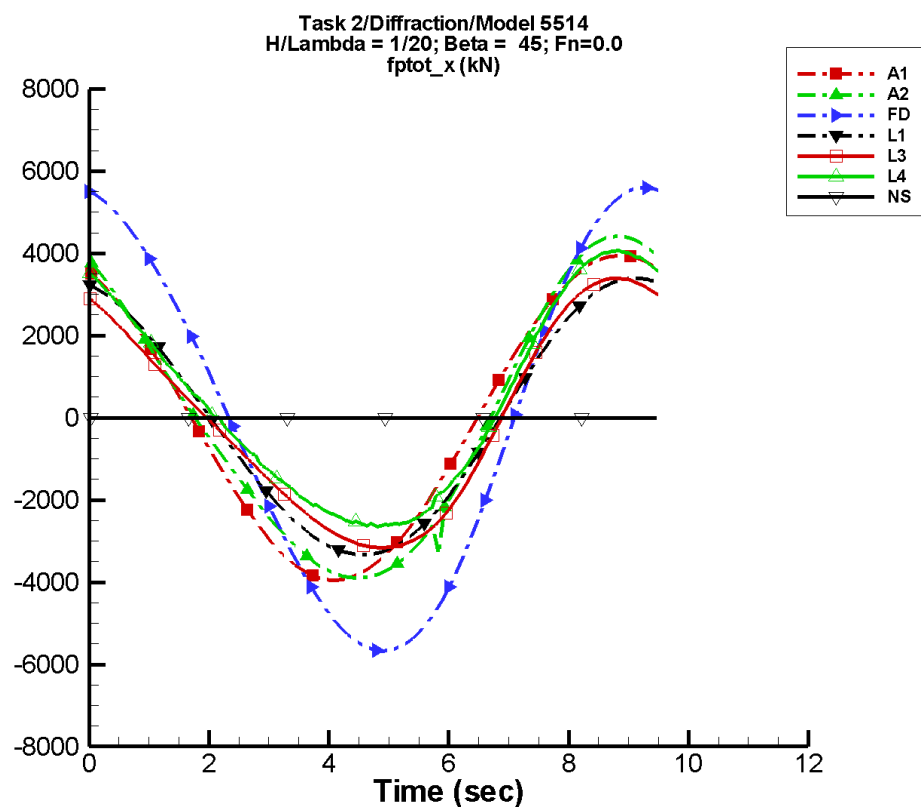
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.15	1.32E+03	111	0.534	64
A2	35.2	1.31E+03	105	57.6	-163
FD	-21.6	1.81E+03	86	44.9	-177
L1	-3.16	1.12E+03	99	14.9	172
L3	-19.0	1.11E+03	98	66.5	-174
L4	28.9	1.12E+03	99	64.0	167
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-90. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.32E+03	1.32E+03	-1.30E+03	1.30E+03
A2	-2.43E+03	1.37E+03	-1.32E+03	1.36E+03
FD	-1.84E+03	1.78E+03	-1.82E+03	1.76E+03
L1	-1.12E+03	1.12E+03	-1.11E+03	1.12E+03
L3	-1.12E+03	1.11E+03	-1.12E+03	1.11E+03
L4	-1.07E+03	1.19E+03	-1.06E+03	1.19E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-46. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

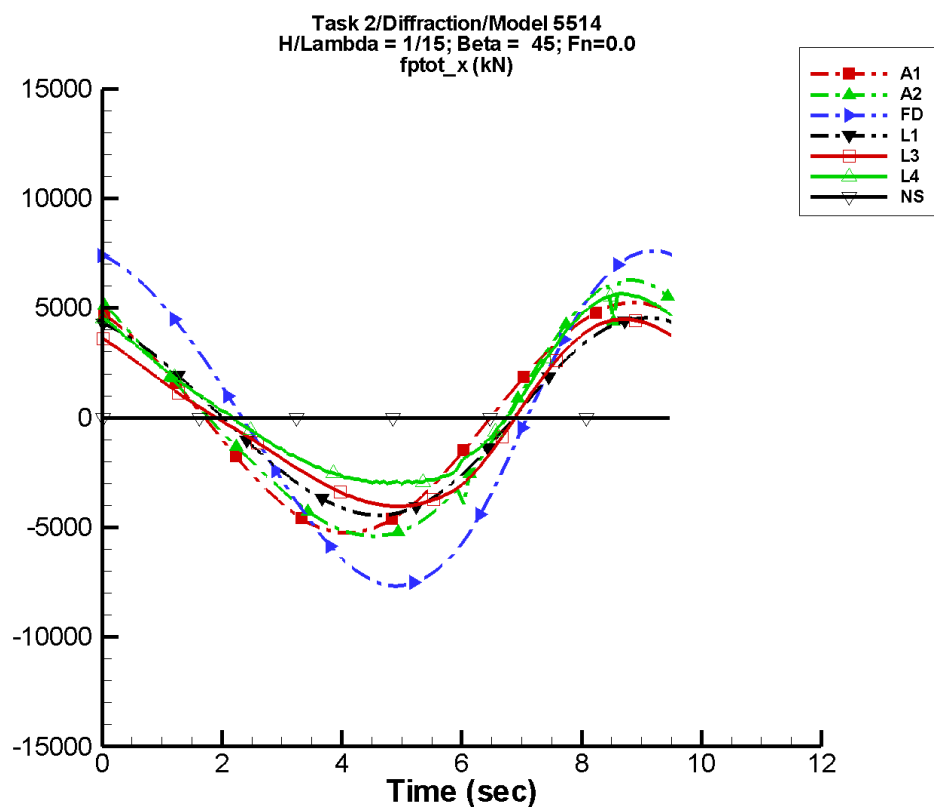
Table H-91. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.45	3.93E+03	111	1.60	64
A2	9.78	4.08E+03	105	435.	175
FD	-21.8	5.61E+03	87	382.	-180
L1	-21.9	3.35E+03	99	136.	175
L3	-36.7	3.18E+03	99	519.	-176
L4	399.	3.24E+03	101	529.	169
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-92. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.95E+03	3.94E+03	-3.90E+03	3.90E+03
A2	-3.90E+03	4.41E+03	-3.87E+03	4.36E+03
FD	-5.67E+03	5.59E+03	-5.61E+03	5.53E+03
L1	-3.34E+03	3.40E+03	-3.32E+03	3.38E+03
L3	-3.16E+03	3.39E+03	-3.15E+03	3.37E+03
L4	-2.65E+03	4.07E+03	-2.61E+03	4.03E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-47. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

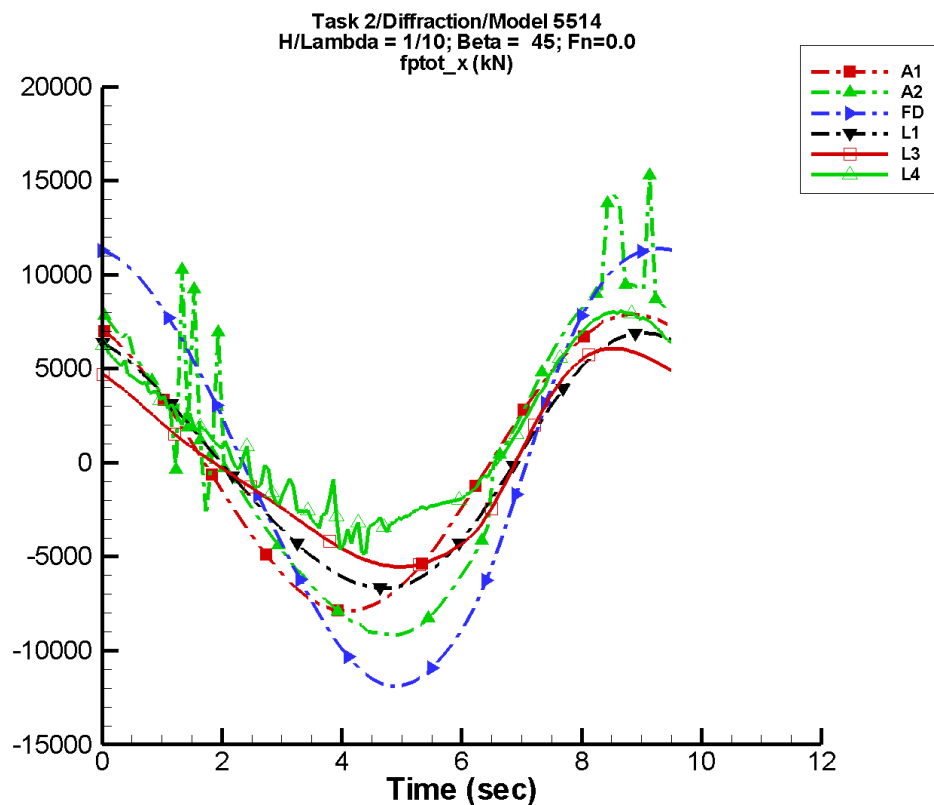
Table H-93. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.59	5.24E+03	111	2.13	64
A2	-37.2	5.64E+03	104	721.	176
FD	-23.7	7.62E+03	87	626.	-180
L1	-37.6	4.47E+03	99	242.	176
L3	-51.8	4.07E+03	100	829.	-176
L4	708.	4.11E+03	102	863.	169
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-94. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.25E+03	5.25E+03	-5.19E+03	5.19E+03
A2	-5.40E+03	6.28E+03	-5.35E+03	6.04E+03
FD	-7.67E+03	7.61E+03	-7.59E+03	7.52E+03
L1	-4.45E+03	4.55E+03	-4.43E+03	4.53E+03
L3	-4.04E+03	4.49E+03	-4.02E+03	4.46E+03
L4	-3.05E+03	5.66E+03	-2.96E+03	5.60E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-48. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

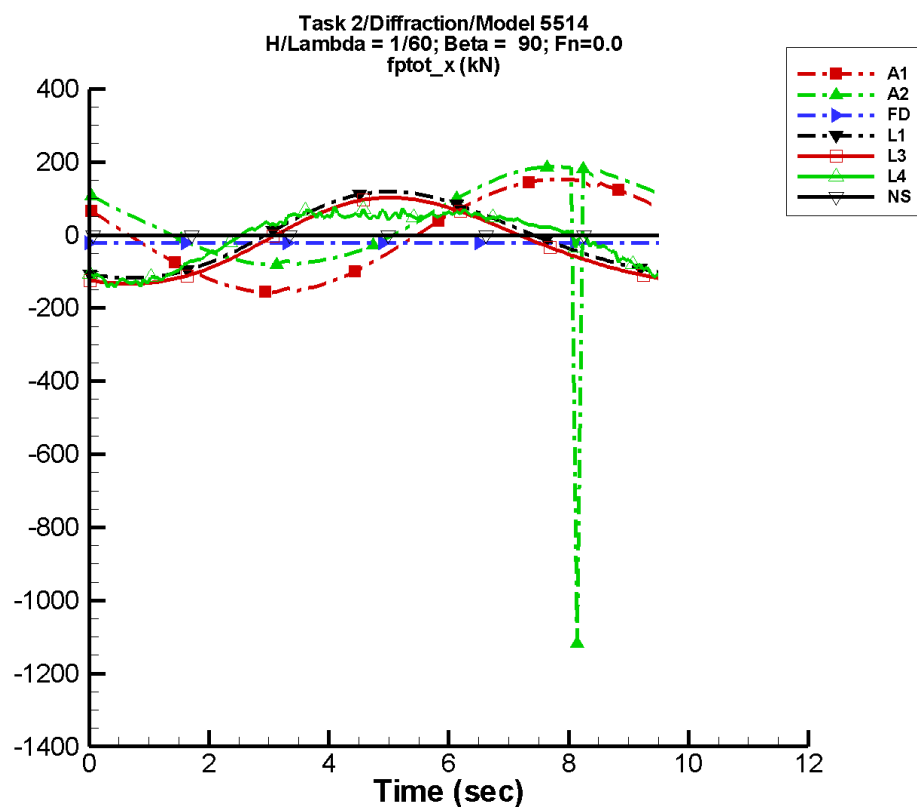
Table H-95. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.90	7.87E+03	111	3.20	64
A2	282.	9.41E+03	106	1.55E+03	-147
FD	-16.4	1.18E+04	86	897.	-174
L1	-81.3	6.71E+03	99	545.	176
L3	-84.7	5.51E+03	100	1.30E+03	-174
L4	1.45E+03	5.37E+03	106	985.	173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-96. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.89E+03	7.89E+03	-7.80E+03	7.80E+03
A2	-9.18E+03	1.53E+04	-9.09E+03	1.13E+04
FD	-1.19E+04	1.14E+04	-1.18E+04	1.13E+04
L1	-6.68E+03	6.90E+03	-6.65E+03	6.87E+03
L3	-5.54E+03	6.08E+03	-5.52E+03	6.04E+03
L4	-4.84E+03	8.08E+03	-3.95E+03	7.98E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-49. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-97. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

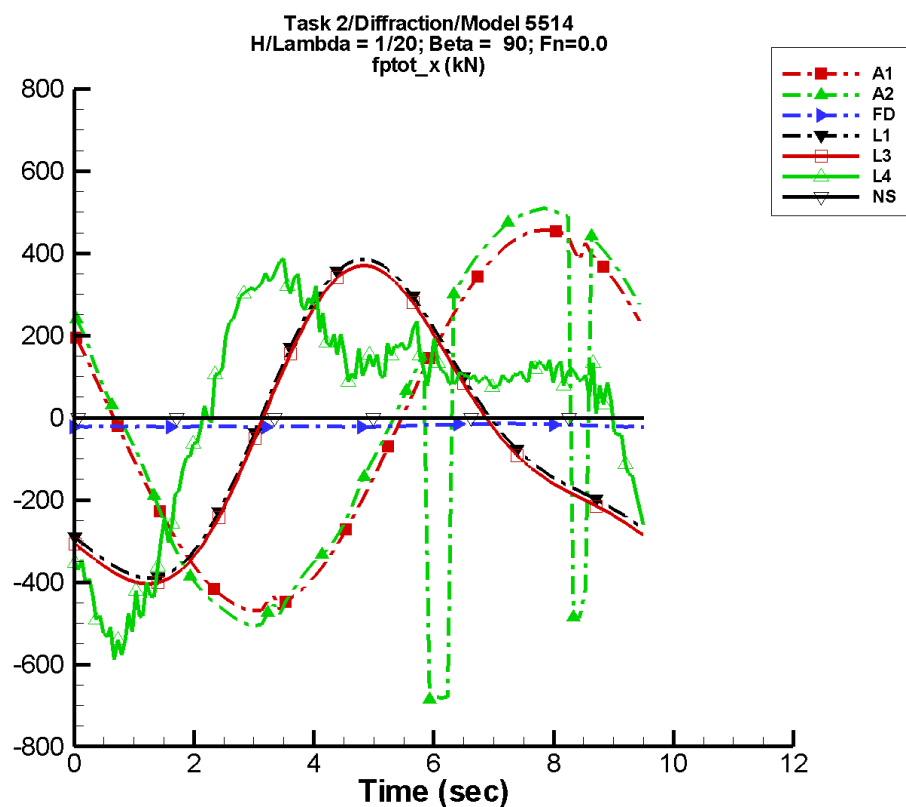
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.39	155.	149	0.832	27
A2	34.7	108.	148	24.5	-3
FD	-21.5	0.579	-3	5.78E-03	33
L1	-5.21	114.	-109	11.6	105
L3	-21.1	114.	-109	11.2	106
L4	-7.36	89.0	-112	30.3	-144
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-98. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-157.	153.	-154.	150.
A2	-1.12E+03	186.	-78.0	190.
FD	-22.4	-20.9	-22.4	-20.9
L1	-117.	119.	-117.	118.
L3	-133.	102.	-133.	102.
L4	-144.	77.7	-130.	61.1
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-50. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

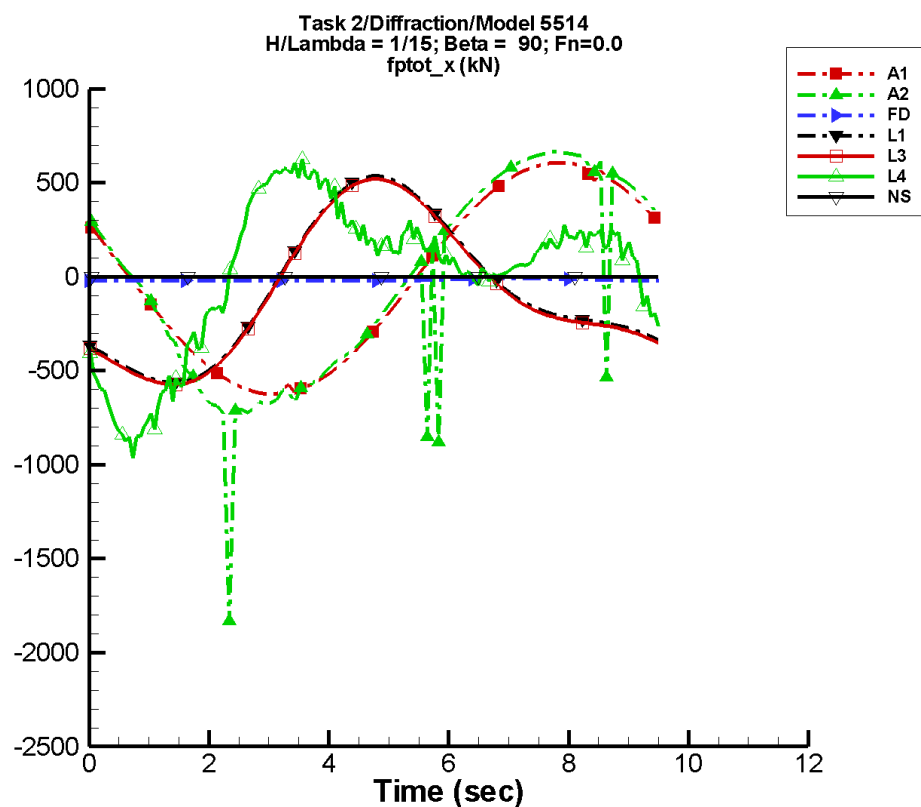
Table H-99. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.17	464.	149	2.49	27
A2	-26.7	436.	139	71.9	83
FD	-19.8	3.19	174	1.66	-101
L1	-44.7	343.	-109	101.	104
L3	-59.4	343.	-109	100.	104
L4	18.6	266.	-104	206.	-157
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-100. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-469.	456.	-460.	450.
A2	-686.	3.01E+03	-492.	543.
FD	-22.2	-14.3	-21.8	-14.5
L1	-390.	385.	-388.	383.
L3	-404.	369.	-402.	367.
L4	-589.	387.	-536.	348.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-51. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

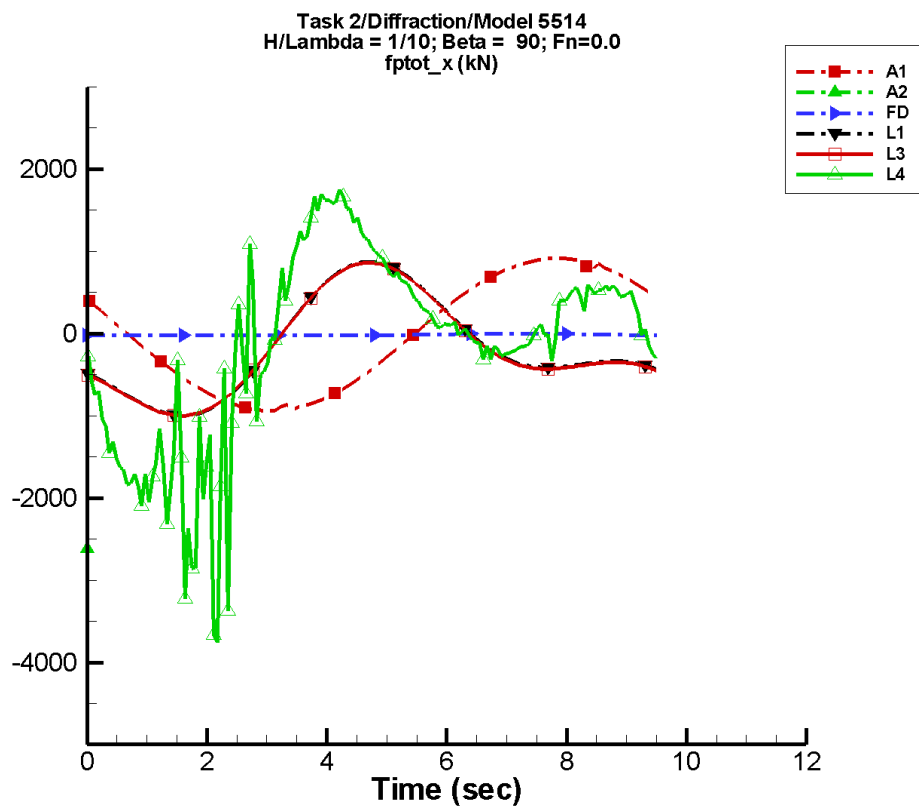
Table H-101. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.55	617.	149	3.31	27
A2	-38.3	674.	150	52.2	98
FD	-18.4	5.41	174	2.72	-101
L1	-79.0	458.	-109	179.	104
L3	-92.7	457.	-109	178.	104
L4	10.9	374.	-103	364.	-171
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-102. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-625.	608.	-612.	599.
A2	-1.83E+03	664.	-853.	671.
FD	-22.4	-9.78	-21.9	-9.87
L1	-563.	536.	-560.	531.
L3	-574.	520.	-571.	516.
L4	-963.	630.	-857.	572.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-52. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

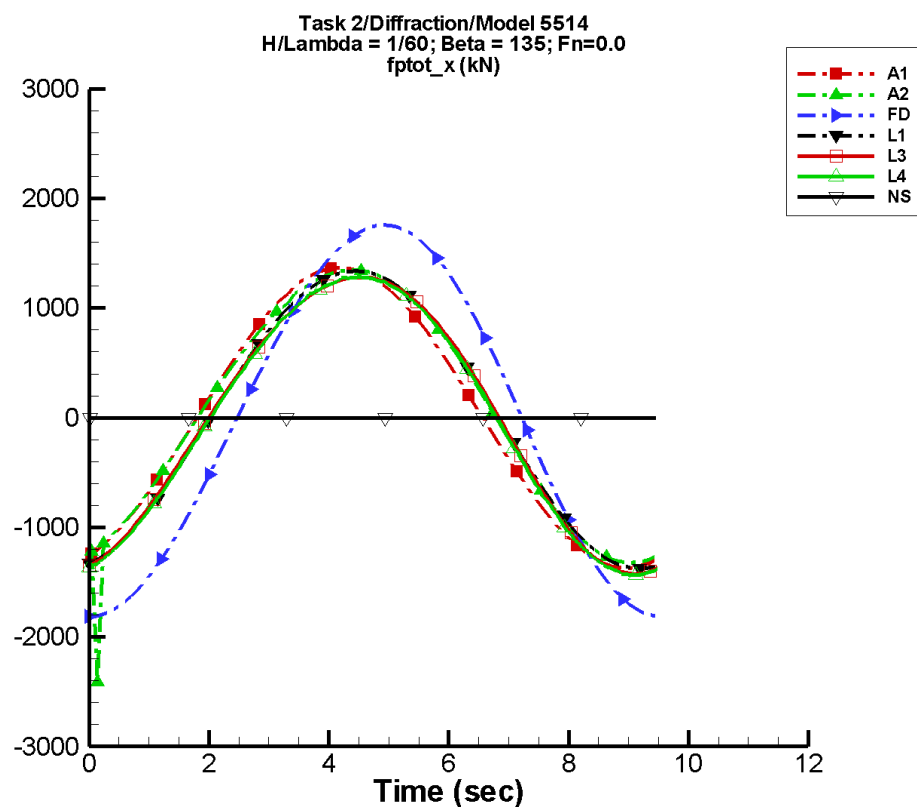
Table H-103. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.33	927.	149	4.98	27
A2	680.	4.52E+03	-178	1.22E+03	-85
FD	-14.9	10.5	174	5.21	-101
L1	-177.	687.	-109	402.	104
L3	-186.	684.	-109	397.	104
L4	-122.	1.04E+03	-122	1.07E+03	145
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-104. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-939.	913.	-920.	900.
A2	-2.62E+03	-2.62E+03	-2.62E+03	-2.62E+03
FD	-22.9	0.840	-22.2	0.950
L1	-1.00E+03	874.	-993.	865.
L3	-1.00E+03	859.	-993.	850.
L4	-3.76E+03	1.81E+03	-2.28E+03	1.72E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-53. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-105. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

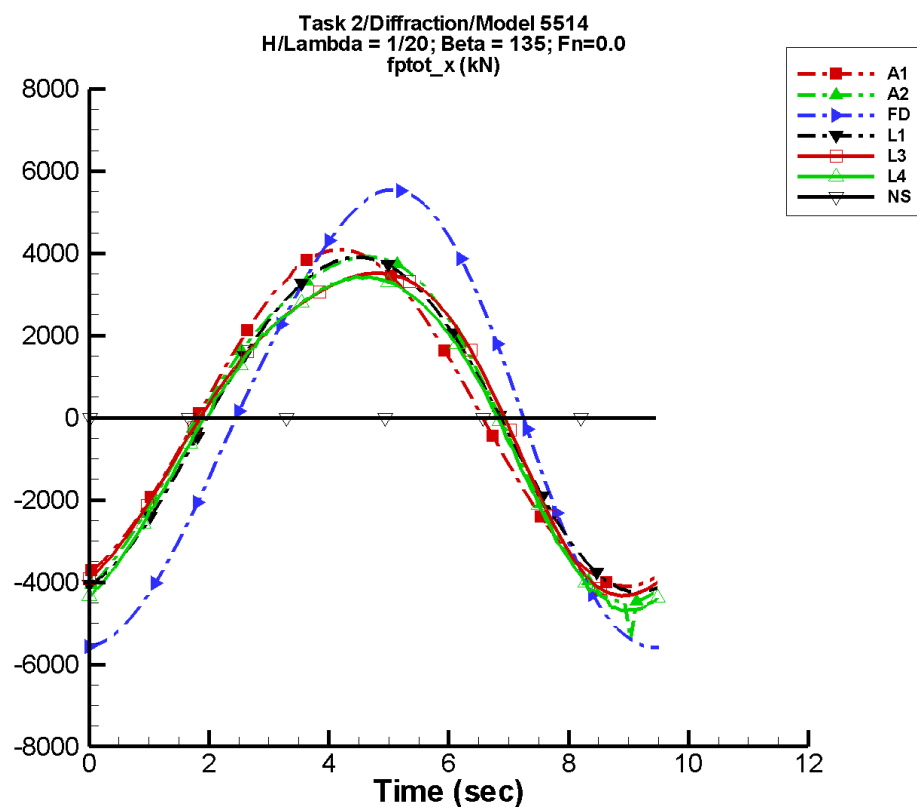
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.207	1.36E+03	-73	0.753	-47
A2	41.7	1.35E+03	-78	58.7	-48
FD	-21.6	1.78E+03	-99	44.9	-25
L1	-1.21	1.36E+03	-81	19.0	-47
L3	-17.0	1.35E+03	-81	69.9	-31
L4	-37.4	1.36E+03	-80	51.2	-27
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-106. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.37E+03	1.37E+03	-1.36E+03	1.35E+03
A2	-2.41E+03	1.35E+03	-1.35E+03	1.33E+03
FD	-1.81E+03	1.76E+03	-1.82E+03	1.74E+03
L1	-1.38E+03	1.34E+03	-1.37E+03	1.35E+03
L3	-1.42E+03	1.28E+03	-1.42E+03	1.28E+03
L4	-1.44E+03	1.28E+03	-1.43E+03	1.29E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-54. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

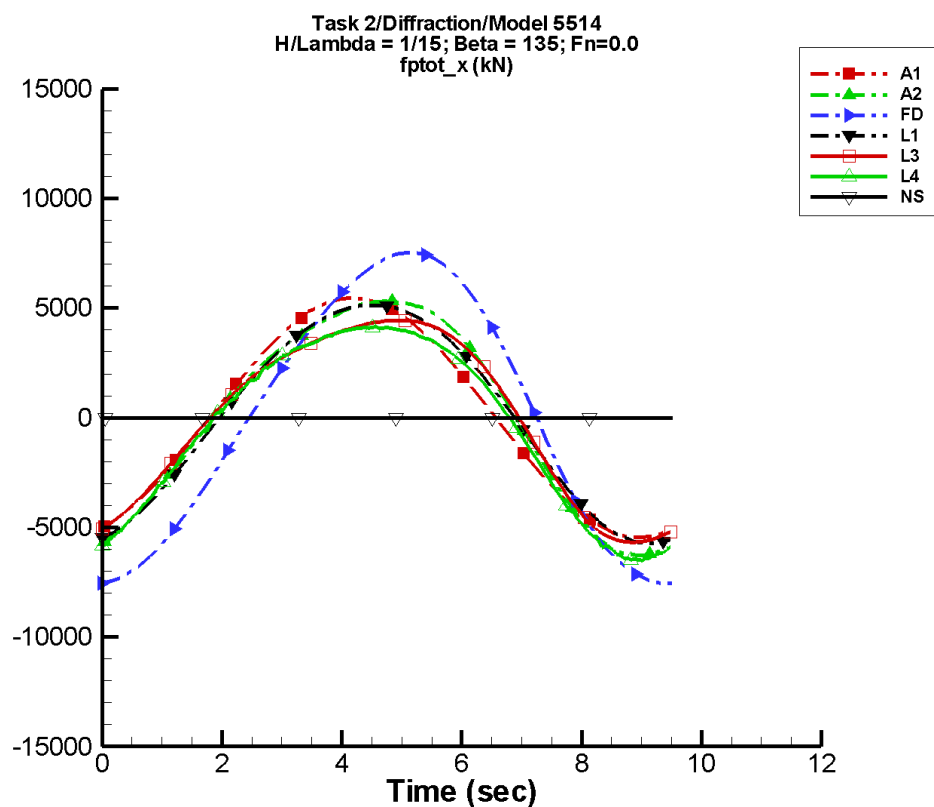
Table H-107. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.619	4.07E+03	-73	2.25	-47
A2	14.7	4.19E+03	-80	427.	-32
FD	-20.1	5.54E+03	-99	382.	-22
L1	-9.52	4.07E+03	-81	171.	-48
L3	-24.0	3.90E+03	-80	535.	-30
L4	-253.	4.00E+03	-79	441.	-38
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-108. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.10E+03	4.09E+03	-4.05E+03	4.04E+03
A2	-5.39E+03	3.91E+03	-4.55E+03	3.88E+03
FD	-5.59E+03	5.54E+03	-5.54E+03	5.48E+03
L1	-4.24E+03	3.91E+03	-4.22E+03	3.93E+03
L3	-4.33E+03	3.52E+03	-4.31E+03	3.51E+03
L4	-4.70E+03	3.42E+03	-4.67E+03	3.41E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-55. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

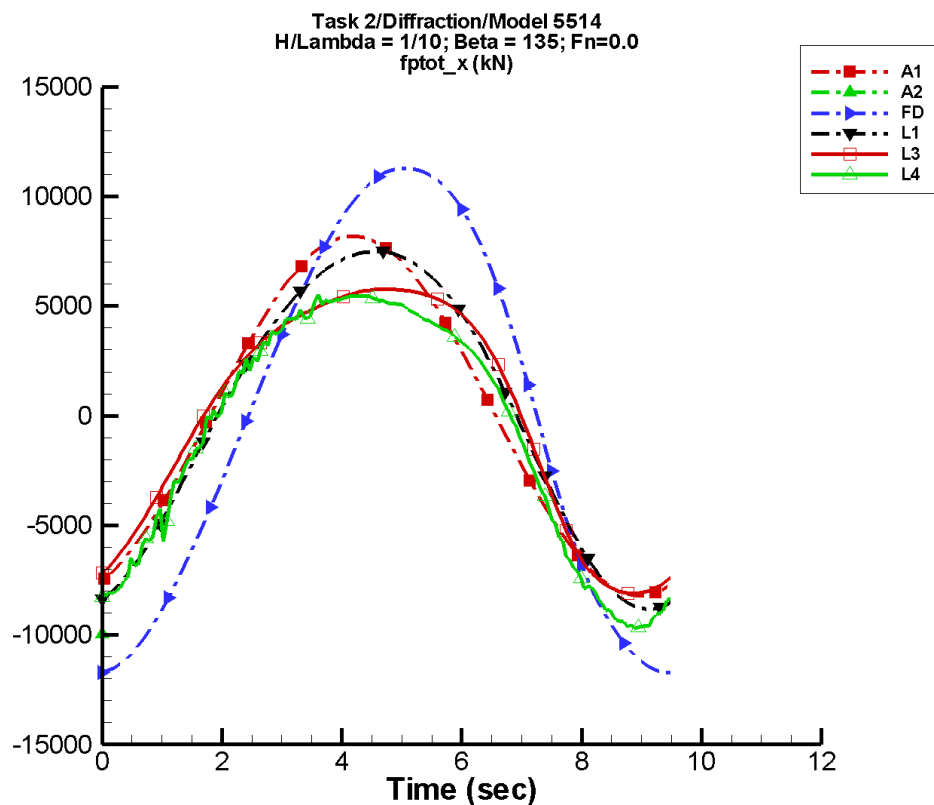
Table H-109. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.824	5.43E+03	-73	3.00	-47
A2	-0.407	5.76E+03	-81	711.	-29
FD	-18.9	7.53E+03	-99	624.	-22
L1	-16.6	5.42E+03	-81	304.	-48
L3	-30.9	5.03E+03	-80	856.	-31
L4	-464.	5.23E+03	-77	762.	-39
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-110. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.46E+03	5.45E+03	-5.40E+03	5.39E+03
A2	-6.27E+03	5.33E+03	-6.20E+03	5.27E+03
FD	-7.56E+03	7.54E+03	-7.48E+03	7.45E+03
L1	-5.73E+03	5.14E+03	-5.71E+03	5.16E+03
L3	-5.68E+03	4.44E+03	-5.65E+03	4.43E+03
L4	-6.53E+03	4.14E+03	-6.44E+03	4.15E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-56. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

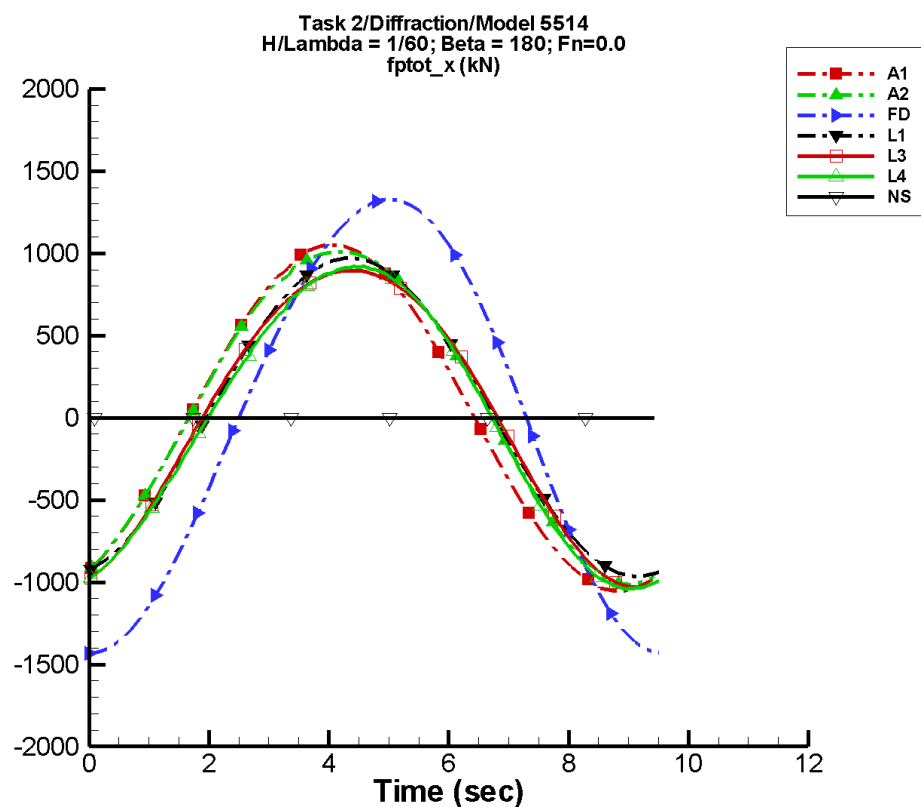
Table H-111. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.24	8.15E+03	-73	4.51	-47
A2	3.28E+04	1.35E+05	-136	7.66E+04	54
FD	-8.93	1.16E+04	-99	893.	-27
L1	-36.7	8.14E+03	-81	683.	-48
L3	-41.9	7.01E+03	-78	1.40E+03	-37
L4	-894.	7.46E+03	-76	1.19E+03	-49
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-112. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.20E+03	8.18E+03	-8.11E+03	8.09E+03
A2	-9.96E+03	-9.55E+03	-9.96E+03	-9.55E+03
FD	-1.17E+04	1.13E+04	-1.16E+04	1.12E+04
L1	-8.83E+03	7.49E+03	-8.78E+03	7.51E+03
L3	-8.11E+03	5.77E+03	-8.07E+03	5.76E+03
L4	-9.73E+03	5.51E+03	-9.60E+03	5.49E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-57. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-113. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

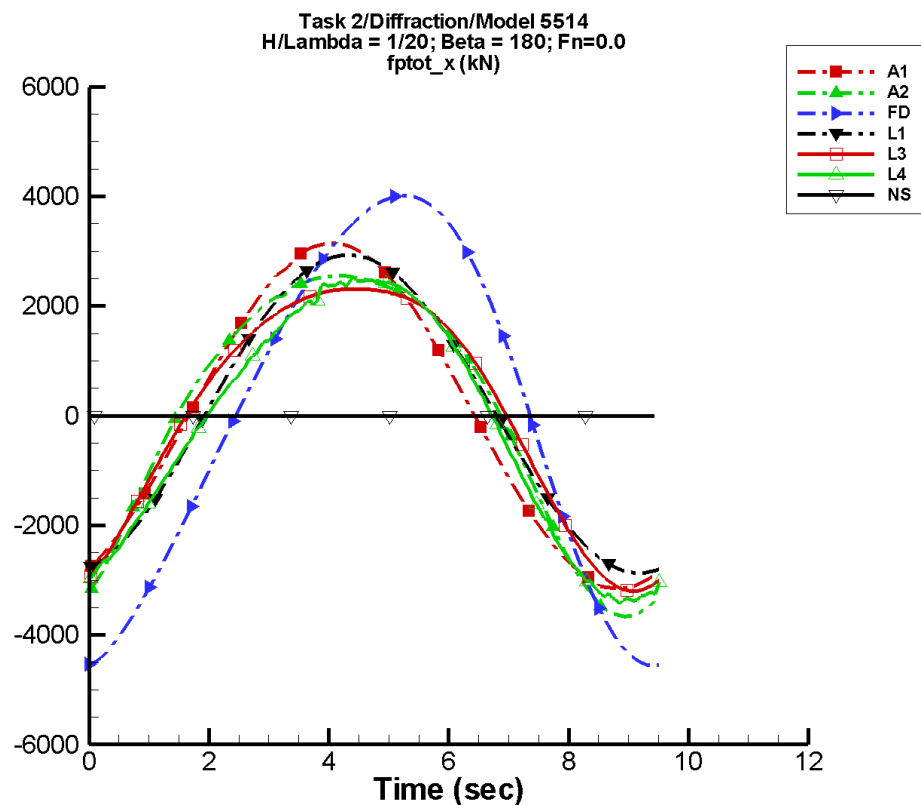
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.51E-02	1.05E+03	-68	0.702	-45
A2	50.2	1.01E+03	-73	48.5	-63
FD	-21.4	1.38E+03	-100	57.9	-52
L1	7.39	967.	-78	5.63	-114
L3	-8.55	961.	-78	58.9	-61
L4	-35.1	976.	-78	38.8	-15
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-114. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.05E+03	1.05E+03	-1.04E+03	1.04E+03
A2	-1.01E+03	1.01E+03	-1.00E+03	1.00E+03
FD	-1.43E+03	1.33E+03	-1.43E+03	1.31E+03
L1	-965.	970.	-961.	967.
L3	-1.03E+03	894.	-1.03E+03	892.
L4	-1.04E+03	923.	-1.04E+03	915.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-58. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

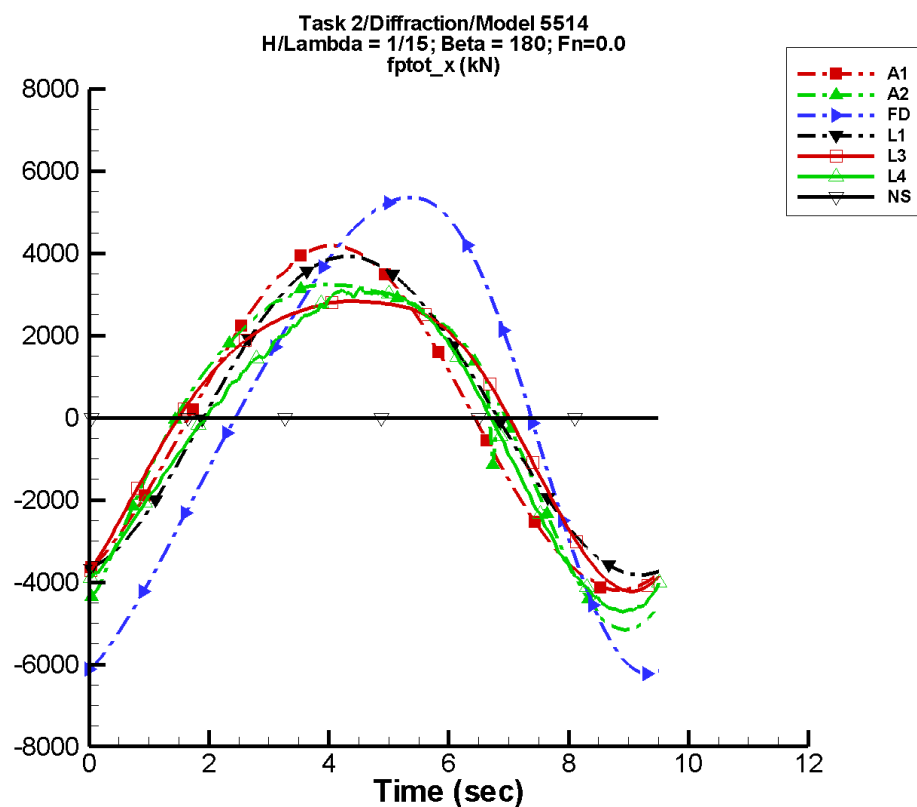
Table H-115. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.255	3.13E+03	-68	2.10	-45
A2	15.2	3.04E+03	-73	609.	-54
FD	-16.2	4.18E+03	-101	501.	-47
L1	65.9	2.90E+03	-78	51.8	-114
L3	50.5	2.70E+03	-77	490.	-52
L4	-212.	2.87E+03	-78	322.	-15
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-116. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.15E+03	3.15E+03	-3.11E+03	3.11E+03
A2	-3.66E+03	2.55E+03	-3.59E+03	2.53E+03
FD	-4.56E+03	4.01E+03	-4.49E+03	3.97E+03
L1	-2.87E+03	2.93E+03	-2.86E+03	2.92E+03
L3	-3.20E+03	2.31E+03	-3.18E+03	2.31E+03
L4	-3.43E+03	2.55E+03	-3.36E+03	2.46E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-59. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

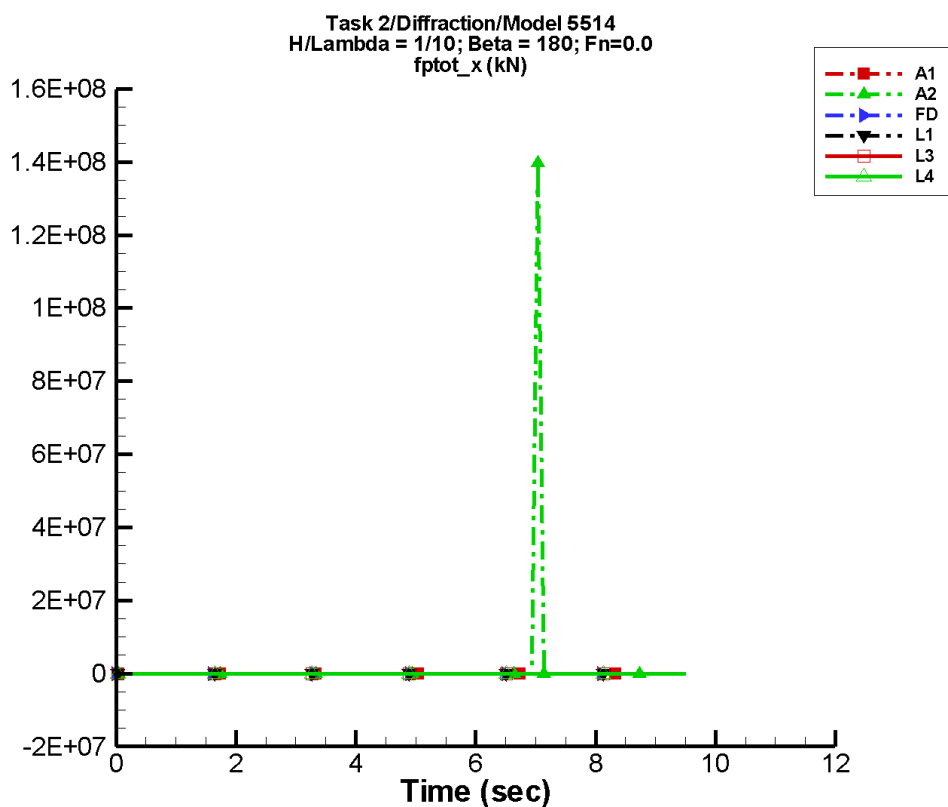
Table H-117. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.340	4.17E+03	-68	2.80	-45
A2	-4.95	4.02E+03	-73	946.	-51
FD	-9.50	5.56E+03	-101	854.	-43
L1	117.	3.87E+03	-78	92.3	-114
L3	104.	3.38E+03	-75	782.	-48
L4	-369.	3.72E+03	-76	567.	-16
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-118. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.20E+03	4.19E+03	-4.15E+03	4.14E+03
A2	-5.16E+03	3.24E+03	-5.06E+03	3.22E+03
FD	-6.24E+03	5.36E+03	-6.12E+03	5.31E+03
L1	-3.82E+03	3.92E+03	-3.80E+03	3.91E+03
L3	-4.22E+03	2.83E+03	-4.19E+03	2.83E+03
L4	-4.73E+03	3.16E+03	-4.68E+03	3.05E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-60. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

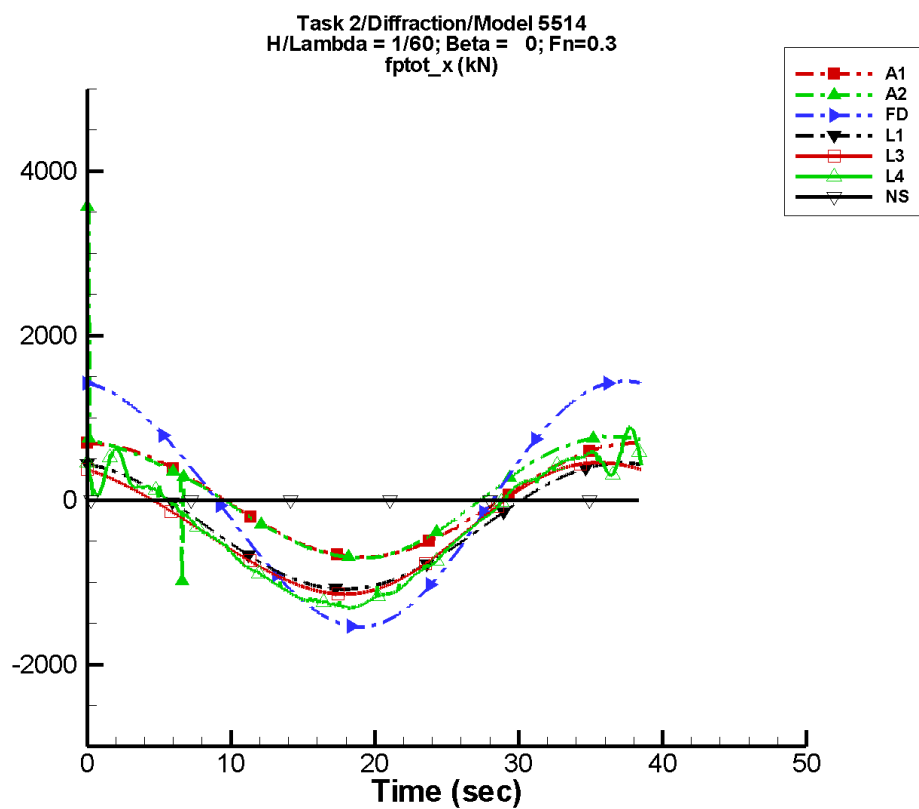
Table H-119. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.510	6.26E+03	-68	4.20	-45
A2	1.54E+06	2.94E+06	176	2.70E+06	-89
FD	4.77	8.23E+03	-100	1.38E+03	-31
L1	263.	5.80E+03	-78	208.	-114
L3	256.	4.48E+03	-70	1.13E+03	-42
L4	-571.	5.11E+03	-77	979.	-14
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-120. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.31E+03	6.29E+03	-6.23E+03	6.22E+03
A2	-8.73E+03	1.40E+08	-1.59E+06	1.86E+07
FD	-9.36E+03	8.00E+03	-9.16E+03	7.94E+03
L1	-5.70E+03	5.93E+03	-5.67E+03	5.91E+03
L3	-5.77E+03	3.95E+03	-5.72E+03	3.94E+03
L4	-8.21E+03	4.62E+03	-6.73E+03	4.33E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-61. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-121. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

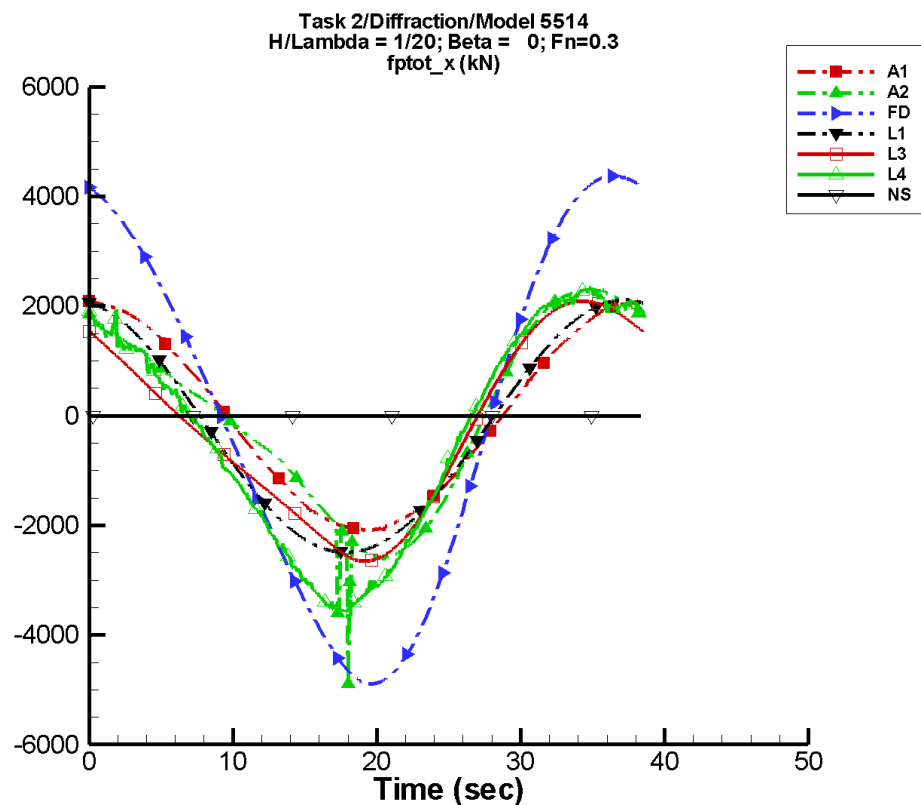
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.893	694.	97	4.33	-138
A2	48.1	729.	105	55.8	-134
FD	-18.2	1.49E+03	103	59.2	-122
L1	-318.	768.	105	2.13	76
L3	-334.	793.	113	53.2	-121
L4	-337.	915.	111	46.0	-81
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-122. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-700.	707.	-695.	700.
A2	-1.00E+03	777.	-705.	770.
FD	-1.54E+03	1.44E+03	-1.54E+03	1.44E+03
L1	-1.08E+03	451.	-1.08E+03	451.
L3	-1.15E+03	454.	-1.15E+03	454.
L4	-1.32E+03	893.	-1.31E+03	866.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-62. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

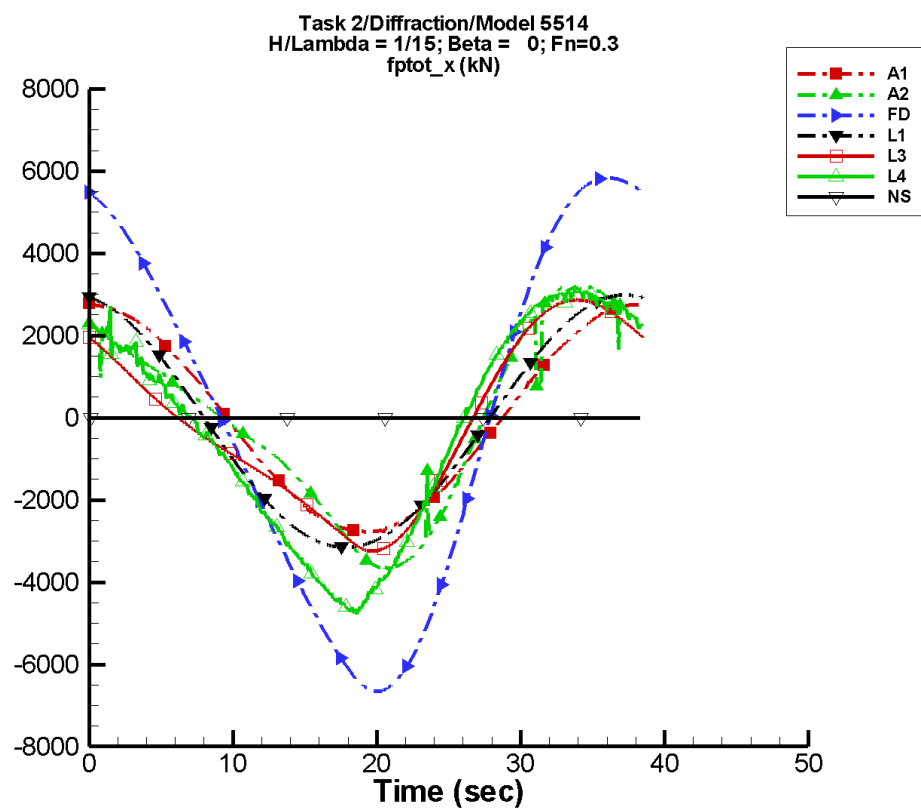
Table H-123. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.67	2.08E+03	97	13.0	-138
A2	6.27	2.23E+03	104	598.	-134
FD	-7.62	4.54E+03	104	509.	-128
L1	-210.	2.30E+03	105	23.6	86
L3	-226.	2.19E+03	114	443.	-132
L4	-323.	2.74E+03	115	414.	-83
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-124. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.09E+03	2.11E+03	-2.08E+03	2.09E+03
A2	-4.89E+03	2.30E+03	-2.87E+03	2.29E+03
FD	-4.89E+03	4.37E+03	-4.89E+03	4.37E+03
L1	-2.49E+03	2.11E+03	-2.49E+03	2.11E+03
L3	-2.65E+03	2.09E+03	-2.65E+03	2.09E+03
L4	-3.59E+03	2.35E+03	-3.56E+03	2.32E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-63. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

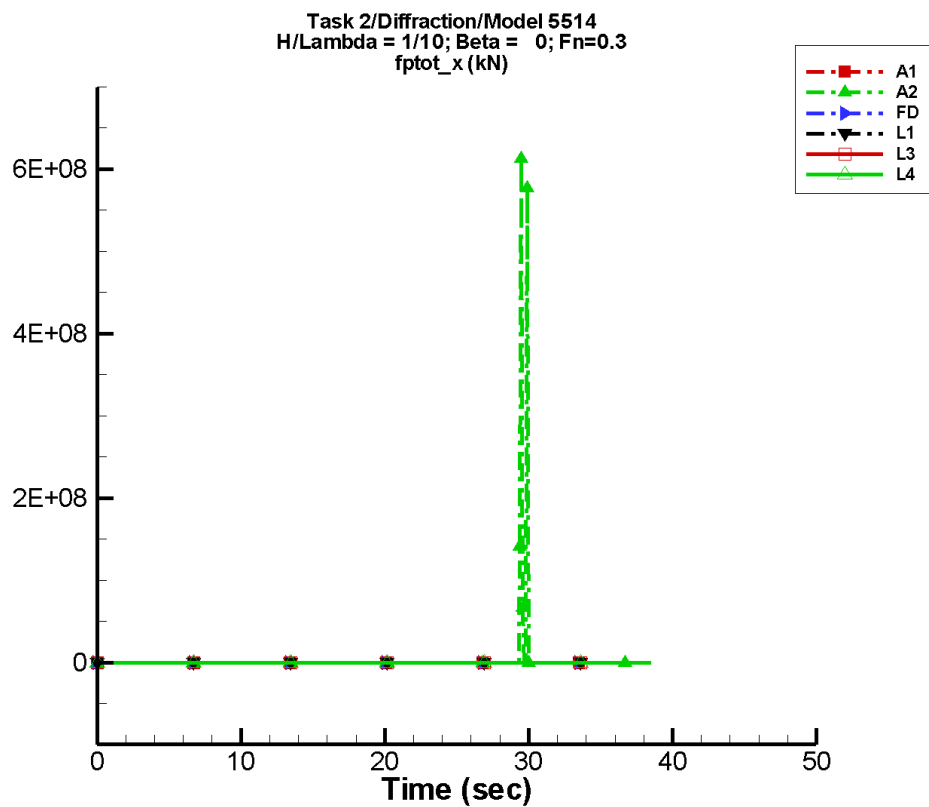
Table H-125. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.56	2.77E+03	97	17.3	-138
A2	-9.60	2.91E+03	104	922.	-136
FD	0.601	6.04E+03	104	871.	-132
L1	-116.	3.07E+03	105	43.0	87
L3	-132.	2.71E+03	115	710.	-136
L4	-294.	3.54E+03	117	711.	-90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-126. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.79E+03	2.81E+03	-2.77E+03	2.79E+03
A2	-3.74E+03	3.20E+03	-3.67E+03	3.15E+03
FD	-6.66E+03	5.83E+03	-6.65E+03	5.83E+03
L1	-3.15E+03	2.99E+03	-3.15E+03	2.99E+03
L3	-3.24E+03	2.87E+03	-3.24E+03	2.87E+03
L4	-4.79E+03	3.08E+03	-4.71E+03	3.06E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-64. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

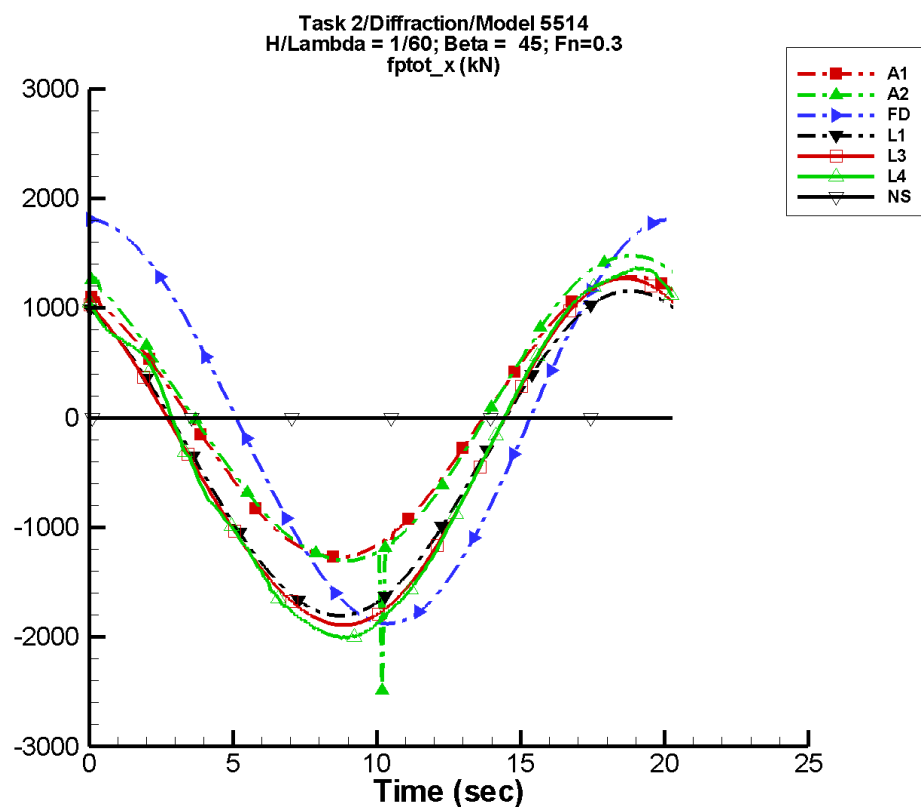
Table H-127. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.34	4.15E+03	97	25.9	-138
A2	3.80E+06	7.36E+06	174	6.48E+06	-92
FD	20.6	8.97E+03	103	1.40E+03	-142
L1	149.	4.61E+03	105	99.2	88
L3	135.	3.34E+03	116	995.	-148
L4	83.4	5.04E+03	122	1.14E+03	-96
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-128. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.19E+03	4.23E+03	-4.16E+03	4.19E+03
A2	-6.29E+03	6.12E+08	-7.30E+06	1.56E+08
FD	-9.97E+03	8.71E+03	-9.96E+03	8.71E+03
L1	-4.38E+03	4.83E+03	-4.37E+03	4.83E+03
L3	-3.79E+03	3.96E+03	-3.78E+03	3.96E+03
L4	-7.14E+03	5.08E+03	-6.11E+03	5.03E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-65. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-129. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

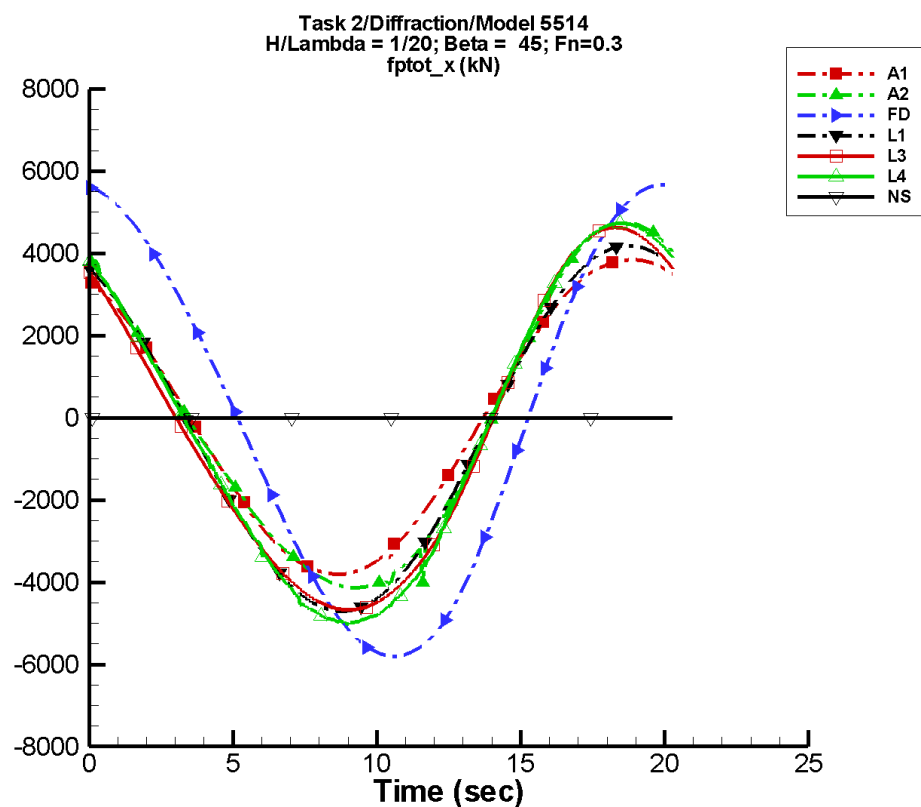
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.15	1.28E+03	109	2.01	134
A2	46.5	1.40E+03	107	52.9	-179
FD	-24.0	1.84E+03	78	43.0	168
L1	-327.	1.48E+03	113	9.74	-151
L3	-342.	1.58E+03	114	61.3	-165
L4	-347.	1.65E+03	113	35.6	-144
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-130. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.27E+03	1.29E+03	-1.27E+03	1.28E+03
A2	-2.49E+03	1.48E+03	-1.39E+03	1.47E+03
FD	-1.88E+03	1.81E+03	-1.87E+03	1.81E+03
L1	-1.81E+03	1.16E+03	-1.80E+03	1.16E+03
L3	-1.89E+03	1.27E+03	-1.89E+03	1.27E+03
L4	-2.01E+03	1.36E+03	-2.00E+03	1.36E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-66. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

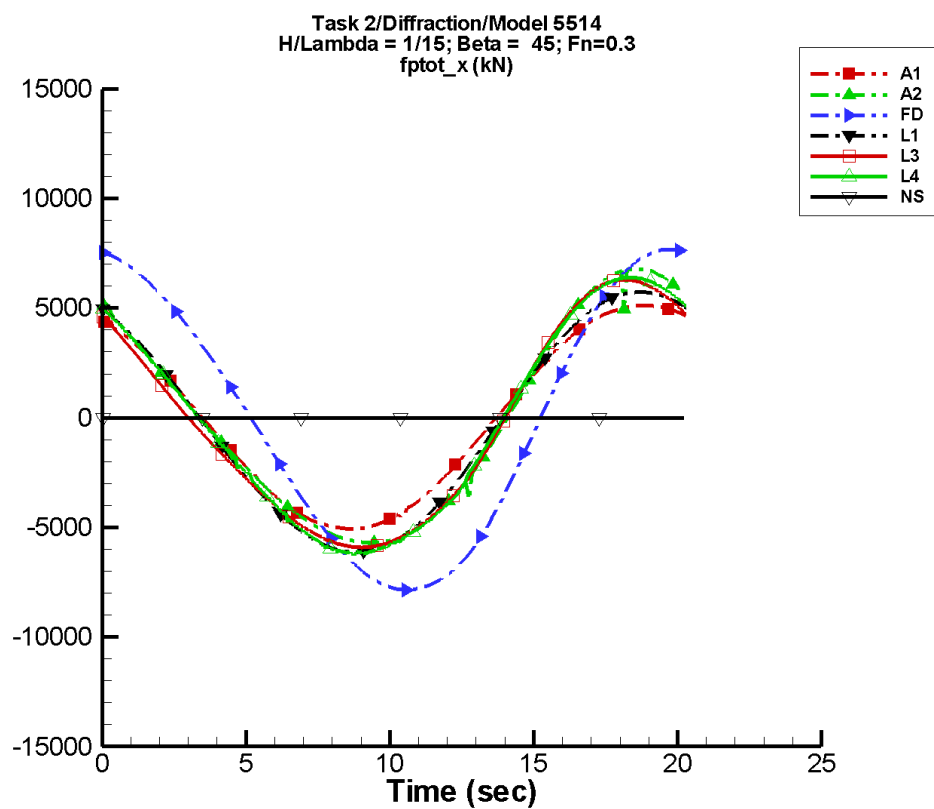
Table H-131. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.42	3.84E+03	109	6.01	134
A2	27.9	4.38E+03	107	431.	173
FD	-28.2	5.71E+03	78	382.	167
L1	-285.	4.44E+03	113	87.9	-151
L3	-300.	4.59E+03	115	461.	-167
L4	-266.	4.81E+03	113	349.	-152
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-132. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.80E+03	3.85E+03	-3.80E+03	3.84E+03
A2	-4.14E+03	4.74E+03	-4.13E+03	4.72E+03
FD	-5.80E+03	5.67E+03	-5.79E+03	5.65E+03
L1	-4.71E+03	4.19E+03	-4.70E+03	4.18E+03
L3	-4.67E+03	4.63E+03	-4.67E+03	4.62E+03
L4	-5.03E+03	4.73E+03	-4.99E+03	4.72E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-67. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

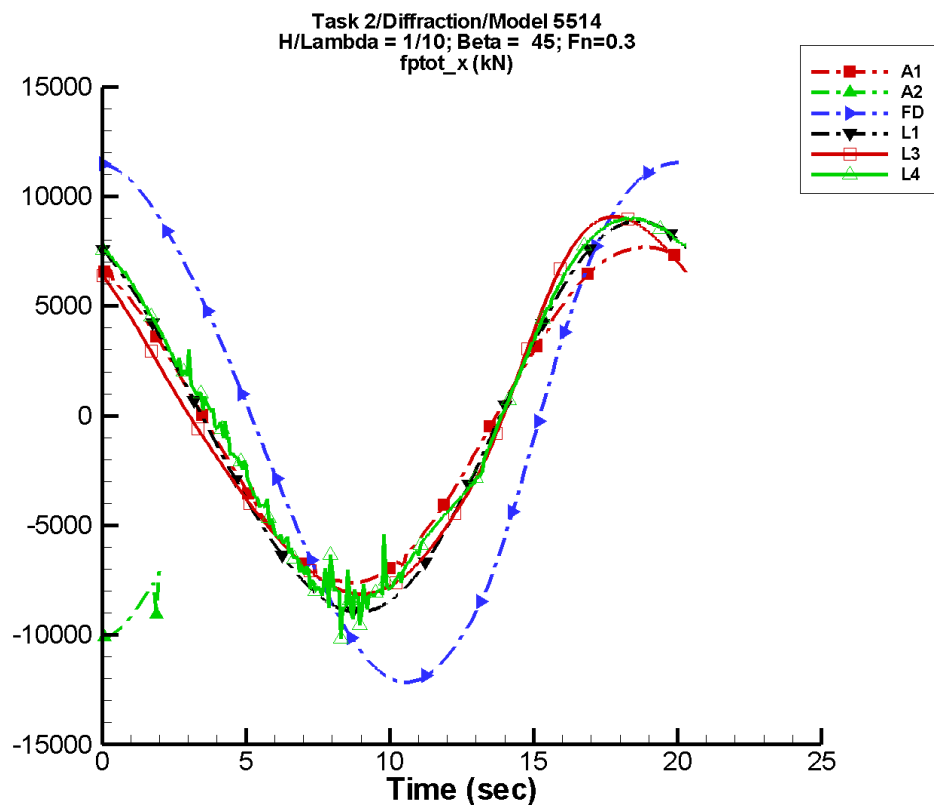
Table H-133. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	12.5	5.11E+03	109	8.00	134
A2	-38.8	6.11E+03	110	756.	178
FD	-31.2	7.75E+03	78	633.	167
L1	-248.	5.92E+03	113	156.	-151
L3	-264.	5.98E+03	116	723.	-166
L4	-160.	6.18E+03	113	505.	-157
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-134. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.07E+03	5.12E+03	-5.05E+03	5.11E+03
A2	-5.84E+03	6.77E+03	-5.83E+03	6.72E+03
FD	-7.85E+03	7.68E+03	-7.83E+03	7.66E+03
L1	-6.14E+03	5.73E+03	-6.13E+03	5.72E+03
L3	-5.91E+03	6.30E+03	-5.91E+03	6.29E+03
L4	-6.26E+03	6.39E+03	-6.18E+03	6.38E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-68. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

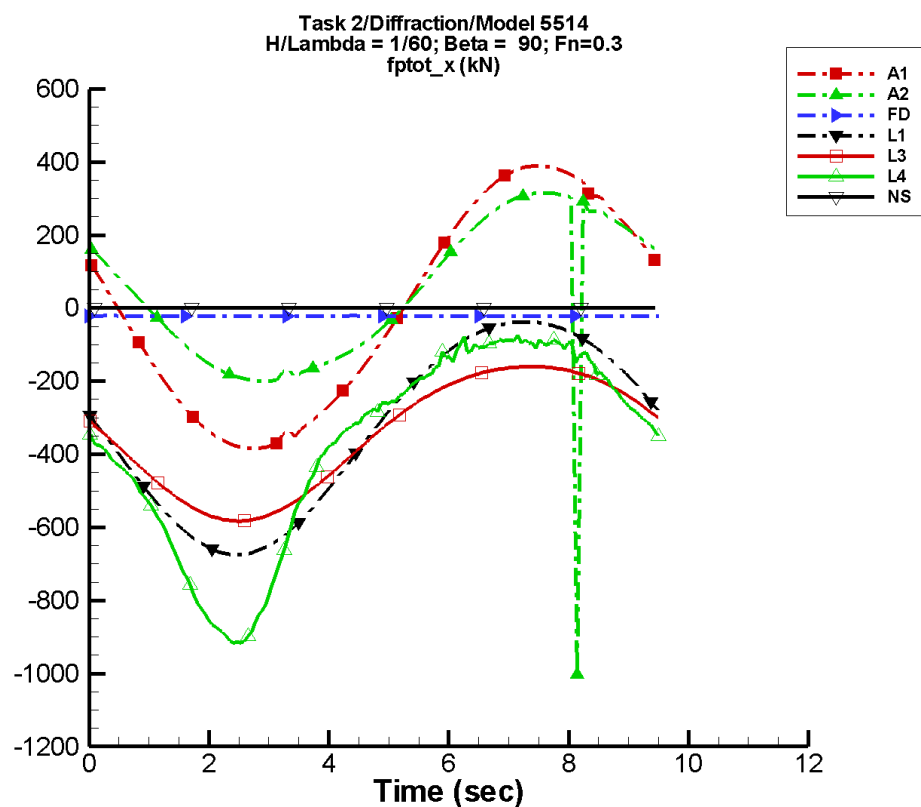
Table H-135. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	18.8	7.68E+03	109	12.0	134
A2	-9.95E+03	7.60E+03	94	7.71E+03	-94
FD	-26.2	1.20E+04	78	907.	173
L1	-143.	8.88E+03	113	351.	-151
L3	-151.	8.41E+03	117	1.09E+03	-160
L4	277.	8.57E+03	112	411.	-141
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-136. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.61E+03	7.69E+03	-7.59E+03	7.67E+03
A2	-1.05E+04	-327.	-1.02E+04	-294.
FD	-1.22E+04	1.15E+04	-1.21E+04	1.15E+04
L1	-8.95E+03	8.87E+03	-8.95E+03	8.86E+03
L3	-8.13E+03	9.07E+03	-8.13E+03	9.06E+03
L4	-1.03E+04	9.05E+03	-8.61E+03	8.99E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-69. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-137. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

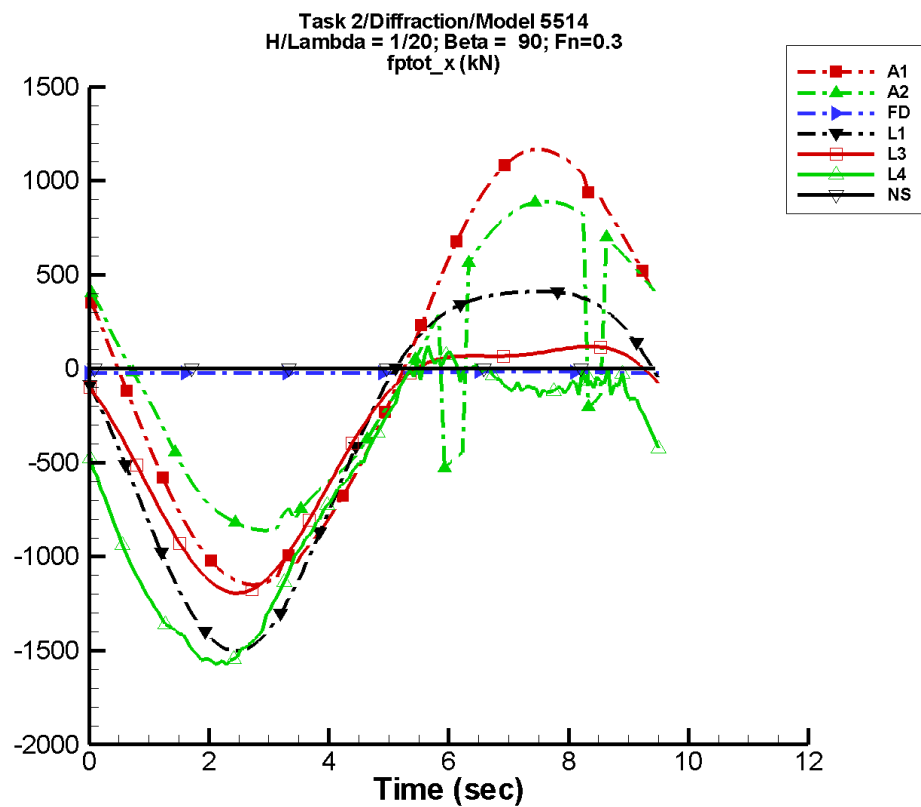
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.649	385.	159	0.386	-106
A2	36.6	231.	152	23.8	-5
FD	-21.5	0.579	-3	5.73E-03	32
L1	-333.	319.	173	22.4	81
L3	-349.	211.	171	22.1	80
L4	-375.	354.	-179	98.5	94
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-138. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-384.	390.	-379.	386.
A2	-1.00E+03	315.	-195.	318.
FD	-22.4	-20.9	-22.4	-20.9
L1	-675.	-36.7	-673.	-37.5
L3	-583.	-160.	-582.	-160.
L4	-918.	-72.5	-908.	-86.2
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-70. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

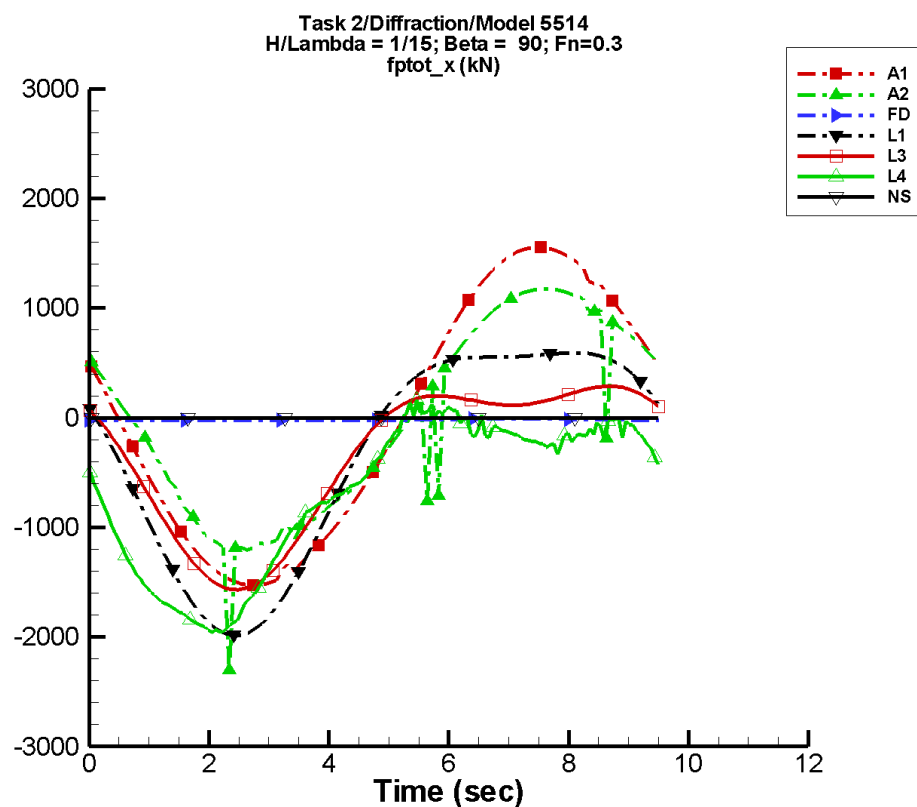
Table H-139. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.94	1.15E+03	159	1.16	-106
A2	-20.8	798.	147	69.3	85
FD	-19.8	3.19	174	1.66	-101
L1	-343.	955.	173	204.	80
L3	-357.	634.	171	203.	80
L4	-596.	765.	-174	207.	99
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-140. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.15E+03	1.17E+03	-1.13E+03	1.15E+03
A2	-861.	3.07E+03	-844.	896.
FD	-22.2	-14.3	-21.8	-14.5
L1	-1.50E+03	413.	-1.49E+03	412.
L3	-1.19E+03	119.	-1.19E+03	117.
L4	-1.60E+03	124.	-1.56E+03	52.7
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-71. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

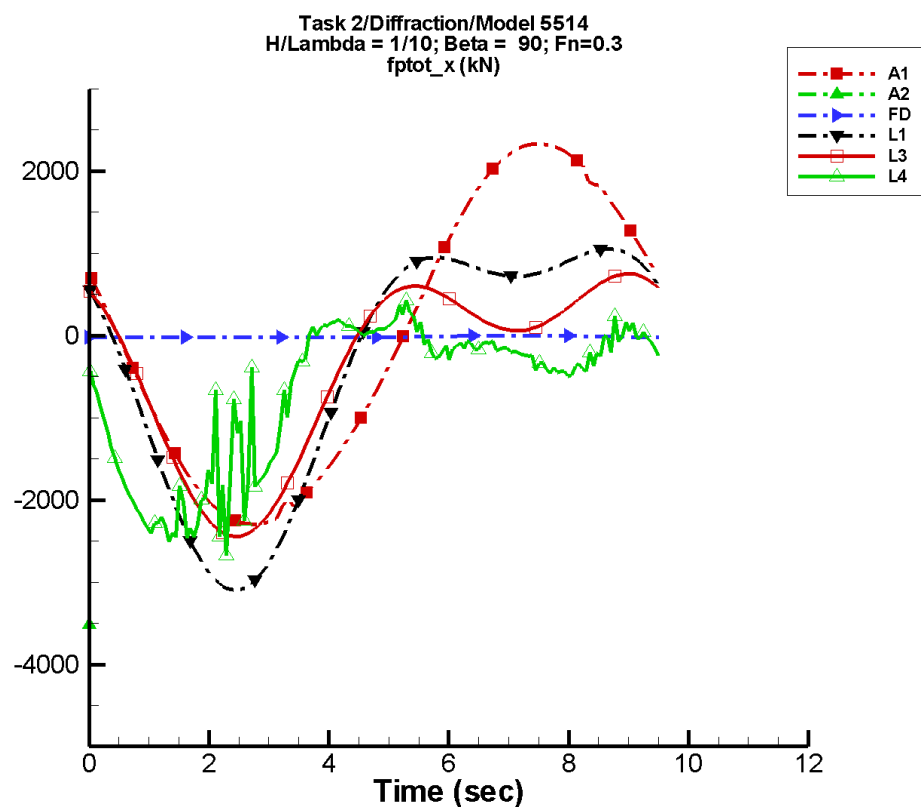
Table H-141. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.58	1.53E+03	159	1.54	-106
A2	-30.5	1.17E+03	153	49.6	102
FD	-18.4	5.41	174	2.72	-101
L1	-351.	1.27E+03	173	362.	80
L3	-364.	845.	171	361.	80
L4	-706.	887.	-170	303.	109
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-142. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.53E+03	1.55E+03	-1.51E+03	1.54E+03
A2	-2.30E+03	1.17E+03	-1.32E+03	1.18E+03
FD	-22.4	-9.78	-21.9	-9.87
L1	-1.99E+03	593.	-1.98E+03	591.
L3	-1.57E+03	288.	-1.56E+03	284.
L4	-1.96E+03	204.	-1.94E+03	70.6
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-72. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

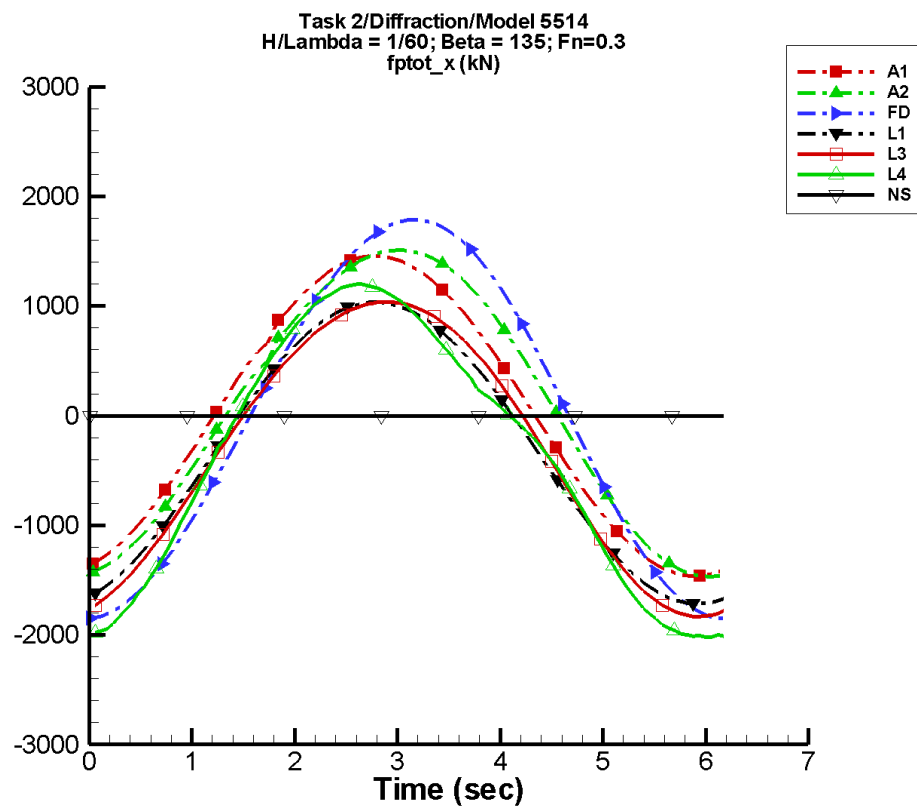
Table H-143. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.88	2.31E+03	159	2.31	-106
A2	2.93E+03	1.28E+04	-102	7.04E+03	33
FD	-14.9	10.5	174	5.21	-101
L1	-374.	1.91E+03	173	816.	80
L3	-383.	1.26E+03	171	811.	80
L4	-663.	969.	-148	581.	132
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-144. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.30E+03	2.33E+03	-2.27E+03	2.31E+03
A2	-3.51E+03	-3.50E+03	-3.51E+03	-3.50E+03
FD	-22.9	0.842	-22.2	0.950
L1	-3.10E+03	1.05E+03	-3.08E+03	1.05E+03
L3	-2.45E+03	750.	-2.43E+03	738.
L4	-2.67E+03	458.	-2.31E+03	277.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-73. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-145. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

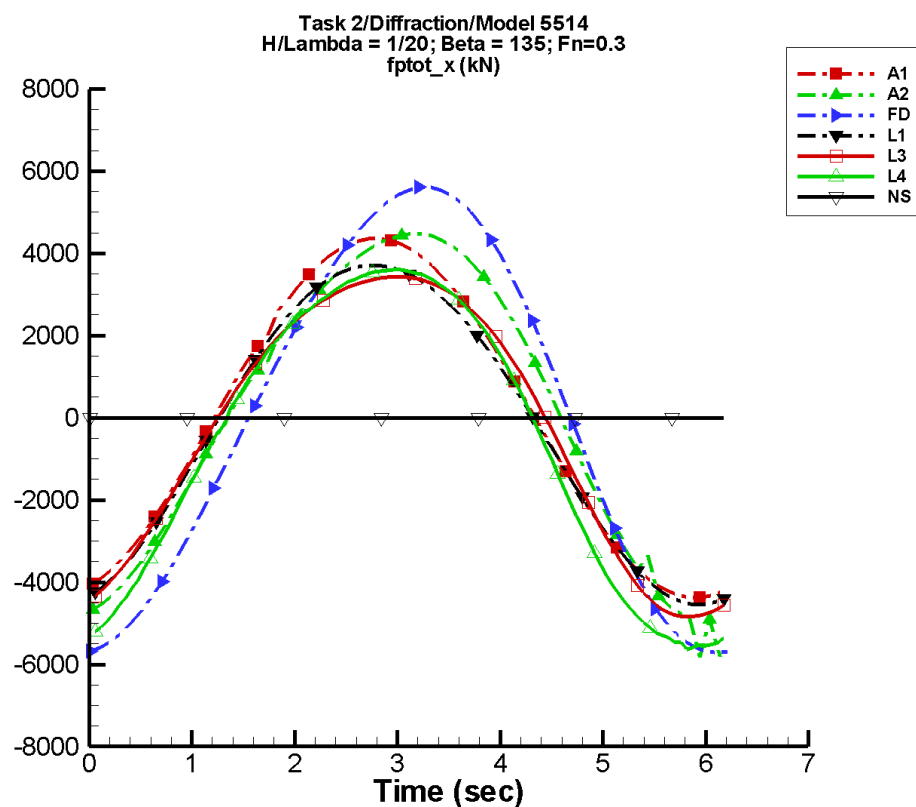
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.455	1.46E+03	-78	1.81	-81
A2	49.8	1.49E+03	-88	48.3	-39
FD	-20.7	1.82E+03	-112	46.1	-58
L1	-324.	1.38E+03	-81	19.0	-96
L3	-340.	1.43E+03	-85	64.3	-54
L4	-397.	1.57E+03	-82	162.	-139
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-146. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.46E+03	1.46E+03	-1.42E+03	1.42E+03
A2	-1.47E+03	1.51E+03	-1.43E+03	1.47E+03
FD	-1.85E+03	1.79E+03	-1.83E+03	1.74E+03
L1	-1.72E+03	1.03E+03	-1.70E+03	1.02E+03
L3	-1.83E+03	1.04E+03	-1.82E+03	1.03E+03
L4	-2.02E+03	1.20E+03	-2.01E+03	1.18E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-74. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

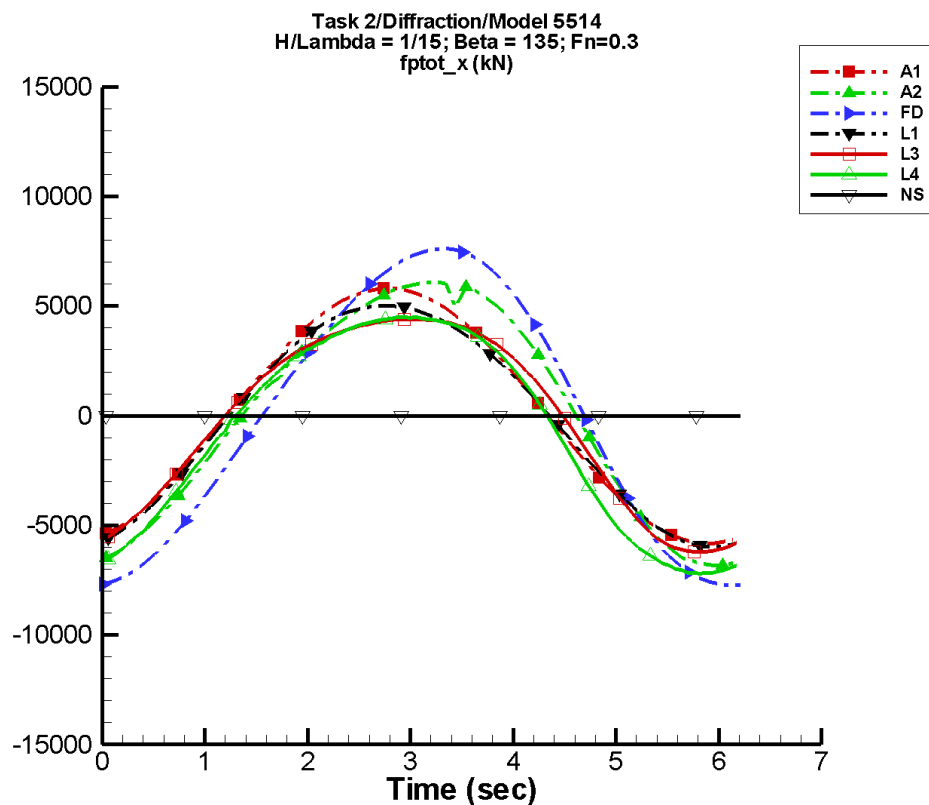
Table H-147. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{plot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.36	4.37E+03	-78	5.41	-81
A2	11.4	4.70E+03	-90	439.	-44
FD	-15.9	5.65E+03	-113	388.	-55
L1	-271.	4.13E+03	-81	160.	-95
L3	-287.	4.15E+03	-84	482.	-52
L4	-696.	4.67E+03	-83	389.	-47
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-148. Minimum and maximum of  $F_x^{\text{plot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.37E+03	4.36E+03	-4.26E+03	4.25E+03
A2	-5.83E+03	4.47E+03	-4.99E+03	4.37E+03
FD	-5.72E+03	5.61E+03	-5.60E+03	5.46E+03
L1	-4.55E+03	3.71E+03	-4.50E+03	3.68E+03
L3	-4.84E+03	3.43E+03	-4.79E+03	3.41E+03
L4	-5.65E+03	3.61E+03	-5.52E+03	3.57E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-75. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

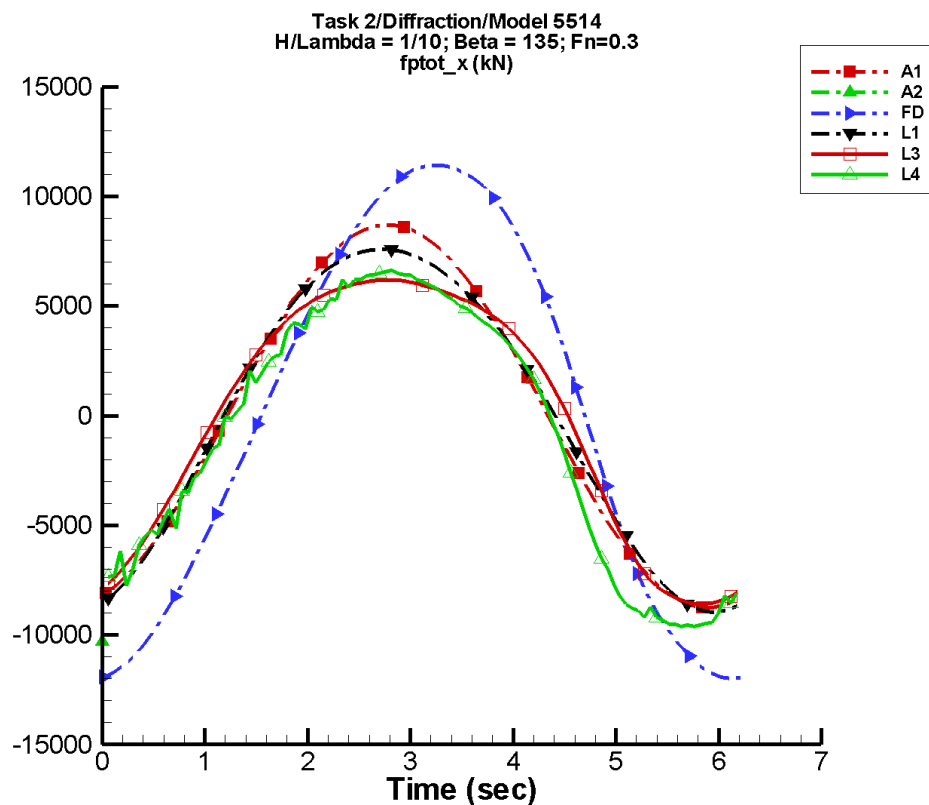
Table H-149. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.81	5.81E+03	-78	7.20	-81
A2	-14.9	6.41E+03	-91	702.	-40
FD	-12.0	7.66E+03	-113	639.	-55
L1	-226.	5.50E+03	-81	282.	-95
L3	-243.	5.37E+03	-84	762.	-54
L4	-876.	5.99E+03	-82	643.	-40
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-150. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.82E+03	5.80E+03	-5.67E+03	5.65E+03
A2	-6.83E+03	6.08E+03	-6.64E+03	5.84E+03
FD	-7.74E+03	7.62E+03	-7.57E+03	7.42E+03
L1	-5.99E+03	5.02E+03	-5.93E+03	4.98E+03
L3	-6.20E+03	4.41E+03	-6.15E+03	4.38E+03
L4	-7.21E+03	4.50E+03	-7.13E+03	4.45E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-76. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

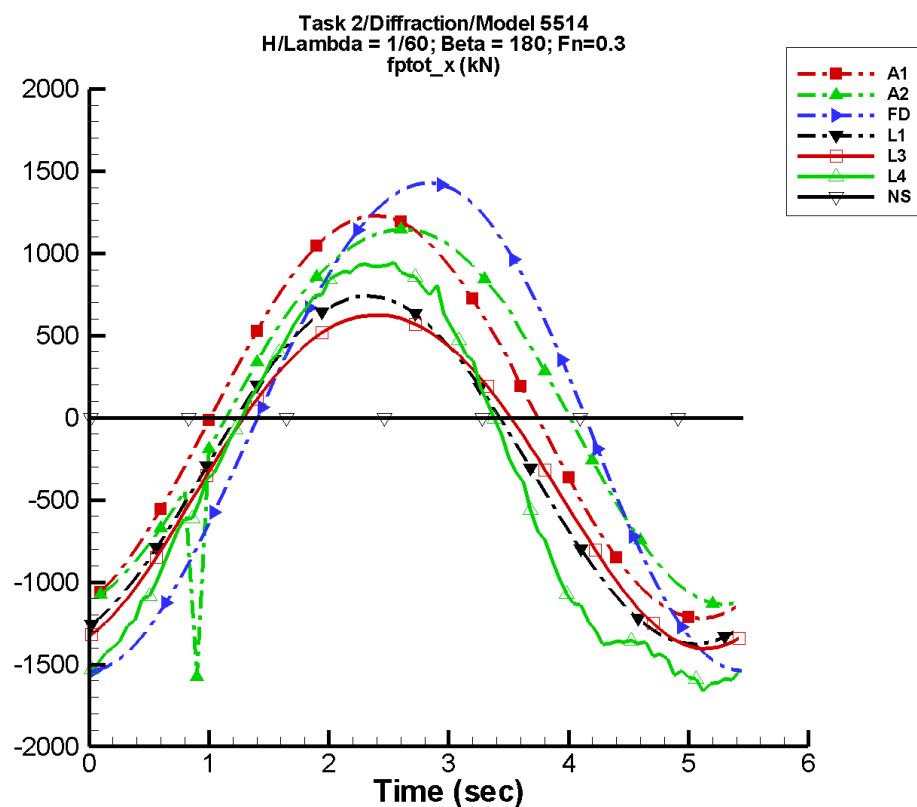
Table H-151. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{plot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.72	8.73E+03	-78	10.8	-81
A2	6.82E+03	1.33E+04	-107	1.06E+04	11
FD	7.02	1.18E+04	-113	925.	-63
L1	-99.0	8.25E+03	-81	630.	-94
L3	-112.	7.52E+03	-82	1.25E+03	-65
L4	-963.	8.08E+03	-79	919.	-16
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-152. Minimum and maximum of  $F_x^{\text{plot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.75E+03	8.71E+03	-8.51E+03	8.49E+03
A2	-1.03E+04	-9.67E+03	-1.03E+04	-9.67E+03
FD	-1.20E+04	1.14E+04	-1.17E+04	1.12E+04
L1	-8.95E+03	7.58E+03	-8.85E+03	7.53E+03
L3	-8.59E+03	6.19E+03	-8.51E+03	6.15E+03
L4	-9.63E+03	6.64E+03	-9.51E+03	6.49E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-77. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–153. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

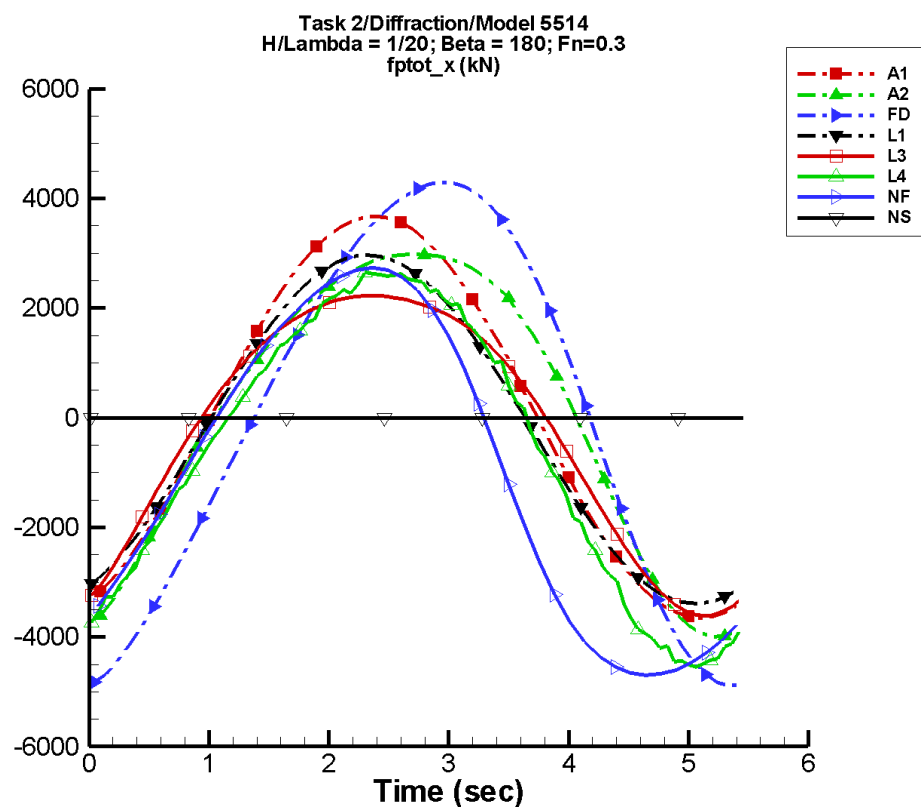
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.55	1.23E+03	-60	7.24	73
A2	36.3	1.15E+03	-75	10.4	-63
FD	-27.0	1.49E+03	-1	56.3	147
L1	-320.	1.06E+03	-41	3.07	-112
L3	-336.	1.01E+03	-46	54.6	-10
L4	-412.	1.30E+03	-39	96.4	165
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–154. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.22E+03	1.23E+03	-1.18E+03	1.19E+03
A2	-1.58E+03	1.15E+03	-1.09E+03	1.11E+03
FD	-1.54E+03	1.43E+03	-1.50E+03	1.38E+03
L1	-1.38E+03	741.	-1.36E+03	728.
L3	-1.40E+03	624.	-1.39E+03	615.
L4	-1.66E+03	946.	-1.60E+03	919.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-78. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

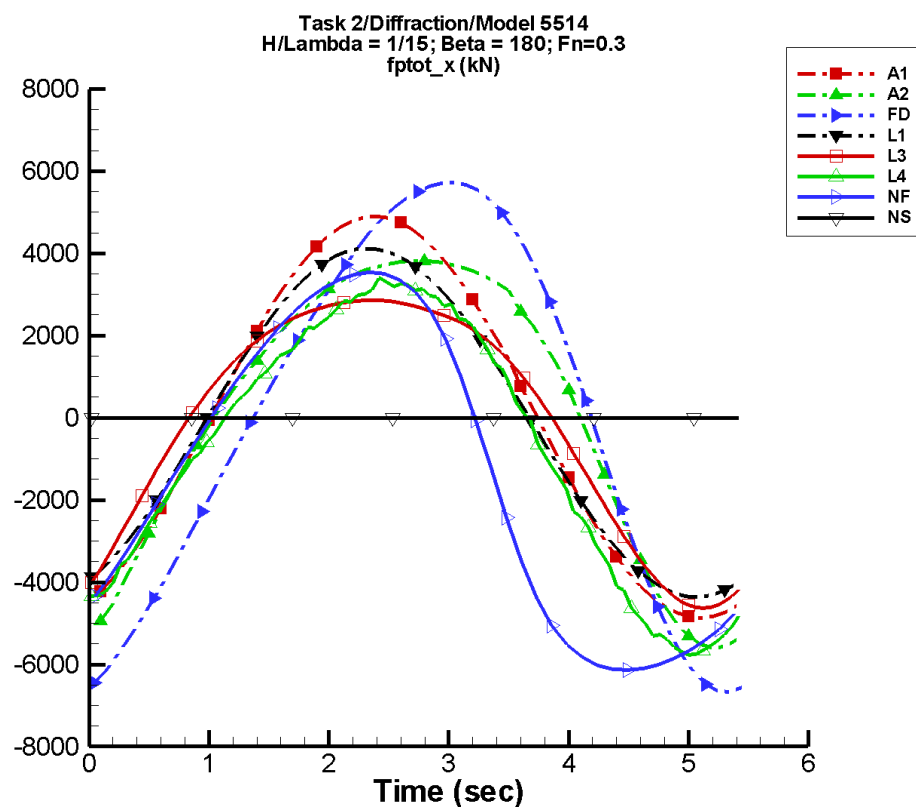
Table H-155. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.65	3.67E+03	-60	21.7	73
A2	32.7	3.42E+03	-73	597.	-31
FD	-36.7	4.51E+03	-1	501.	149
L1	-212.	3.18E+03	-41	16.6	-76
L3	-226.	2.87E+03	-44	464.	1
L4	-666.	3.43E+03	-45	331.	47
NF	-1.06E+03	3.76E+03	30	405.	-116
NS	—	—	—	—	—

Table H-156. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.65E+03	3.67E+03	-3.54E+03	3.55E+03
A2	-4.00E+03	2.98E+03	-3.81E+03	2.93E+03
FD	-4.89E+03	4.29E+03	-4.72E+03	4.17E+03
L1	-3.39E+03	2.96E+03	-3.35E+03	2.93E+03
L3	-3.61E+03	2.23E+03	-3.55E+03	2.21E+03
L4	-4.55E+03	2.66E+03	-4.43E+03	2.58E+03
NF	-4.70E+03	2.74E+03	-4.55E+03	2.53E+03
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-79. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

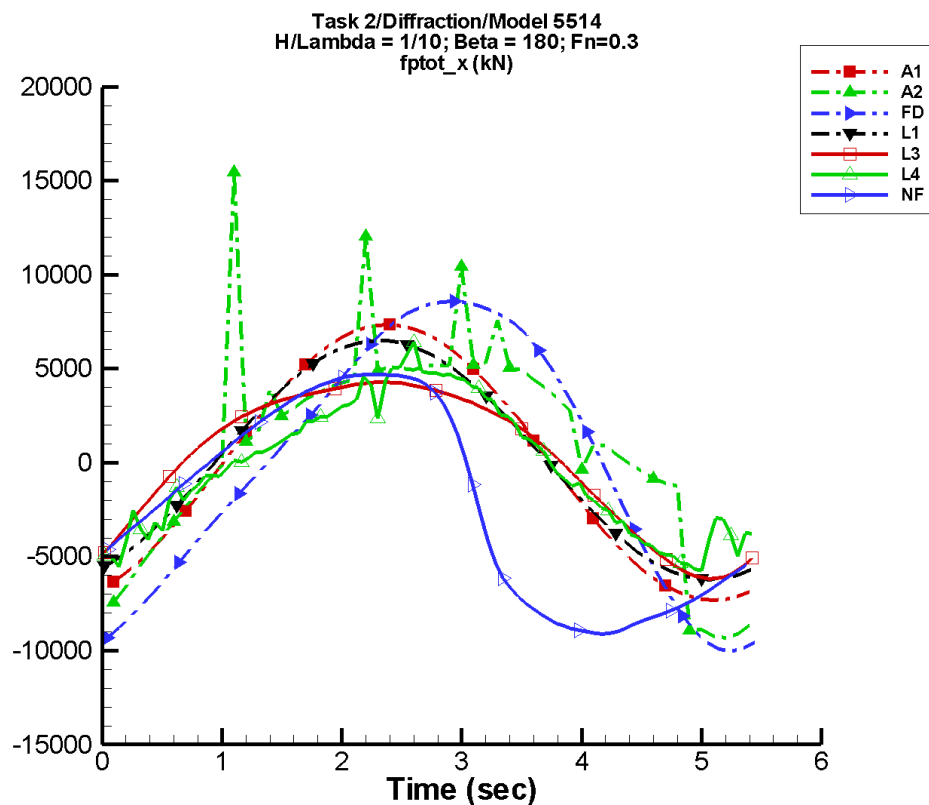
Table H-157. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	6.19	4.89E+03	-60	28.9	73
A2	20.2	4.56E+03	-73	973.	-31
FD	-41.0	6.00E+03	-1	861.	152
L1	-116.	4.24E+03	-41	28.7	-68
L3	-126.	3.63E+03	-43	741.	5
L4	-818.	4.26E+03	-44	541.	50
NF	-1.47E+03	4.95E+03	35	719.	-103
NS	—	—	—	—	—

Table H-158. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.86E+03	4.89E+03	-4.71E+03	4.73E+03
A2	-5.61E+03	3.82E+03	-5.30E+03	3.76E+03
FD	-6.68E+03	5.72E+03	-6.49E+03	5.56E+03
L1	-4.36E+03	4.11E+03	-4.31E+03	4.06E+03
L3	-4.64E+03	2.86E+03	-4.55E+03	2.84E+03
L4	-5.76E+03	3.42E+03	-5.61E+03	3.20E+03
NF	-6.13E+03	3.55E+03	-6.01E+03	3.32E+03
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-80. Time history of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

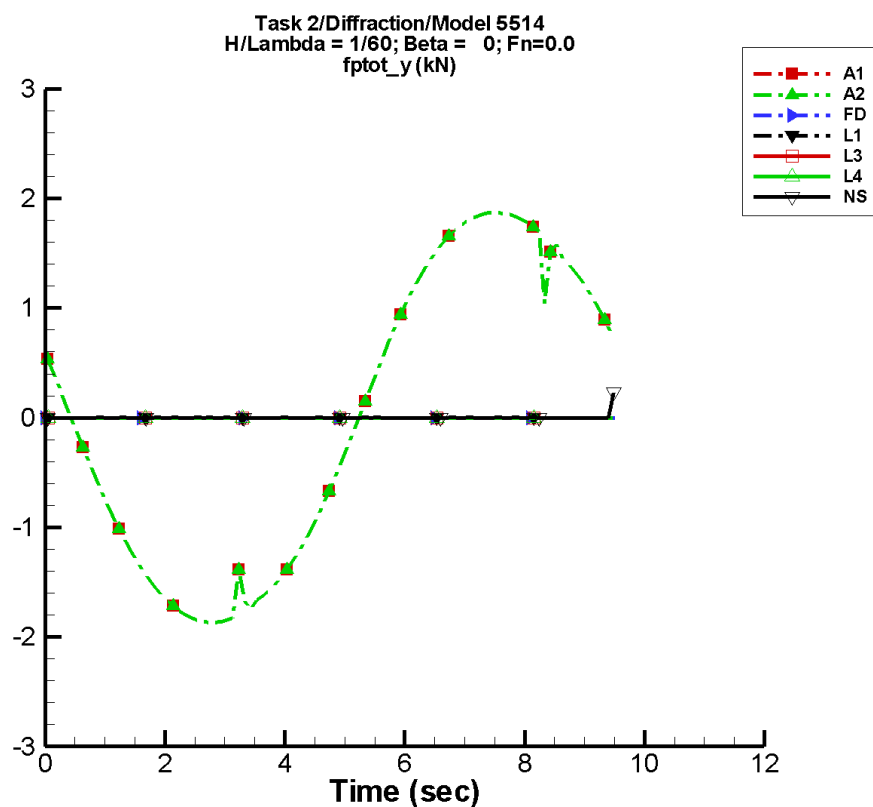
Table H-159. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.30	7.34E+03	-60	43.3	73
A2	916.	6.61E+03	-75	2.14E+03	-54
FD	-47.8	8.90E+03	0	1.38E+03	162
L1	161.	6.36E+03	-41	64.0	-61
L3	162.	4.92E+03	-37	1.05E+03	14
L4	-199.	4.57E+03	-54	827.	74
NF	-2.30E+03	6.94E+03	30	1.50E+03	-113
NS	—	—	—	—	—

Table H-160. Minimum and maximum of  $F_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.31E+03	7.35E+03	-7.07E+03	7.10E+03
A2	-9.31E+03	1.55E+04	-8.24E+03	6.09E+03
FD	-1.00E+04	8.58E+03	-9.82E+03	8.38E+03
L1	-6.22E+03	6.49E+03	-6.14E+03	6.42E+03
L3	-6.17E+03	4.29E+03	-6.01E+03	4.24E+03
L4	-5.74E+03	6.43E+03	-4.99E+03	5.11E+03
NF	-9.10E+03	4.69E+03	-8.97E+03	4.65E+03
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-81. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-161. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

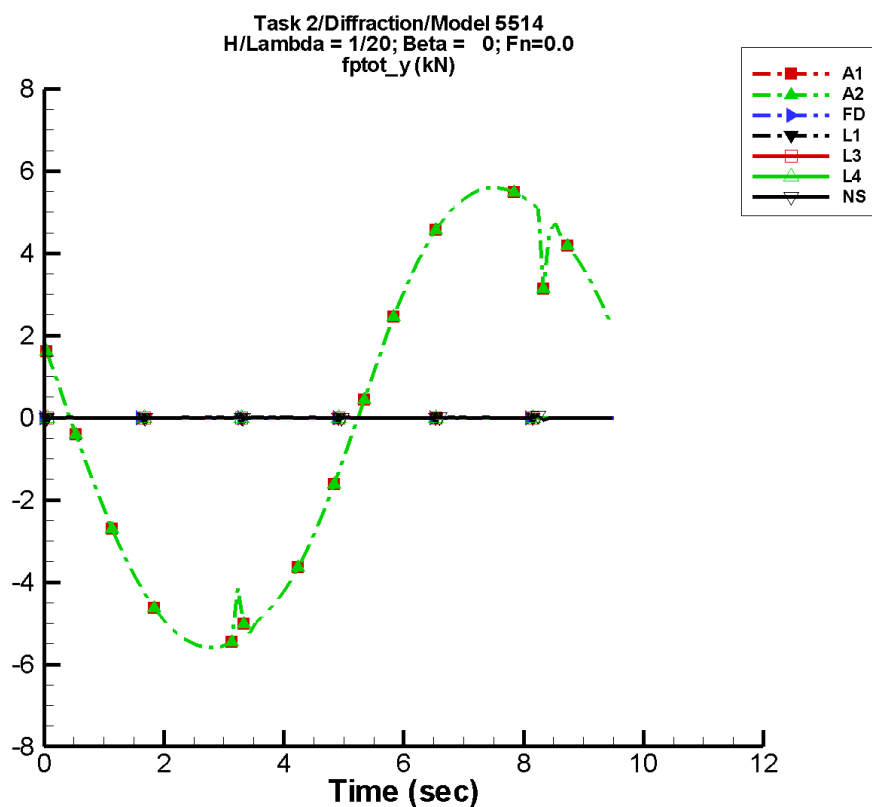
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.66E-03	1.91	159	5.40E-03	60
A2	-3.67E-03	1.91	159	5.40E-03	60
FD	6.76E-06	1.55E-05	-122	9.26E-06	-67
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.93E-05	2.59E-04	138	3.70E-04	-156

Table H-162. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.87	1.87	-1.84	1.86
A2	-1.87	1.87	-1.84	1.86
FD	-9.74E-05	1.26E-04	-3.10E-05	3.59E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.232	0.232	-5.19E-03	5.53E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-82. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

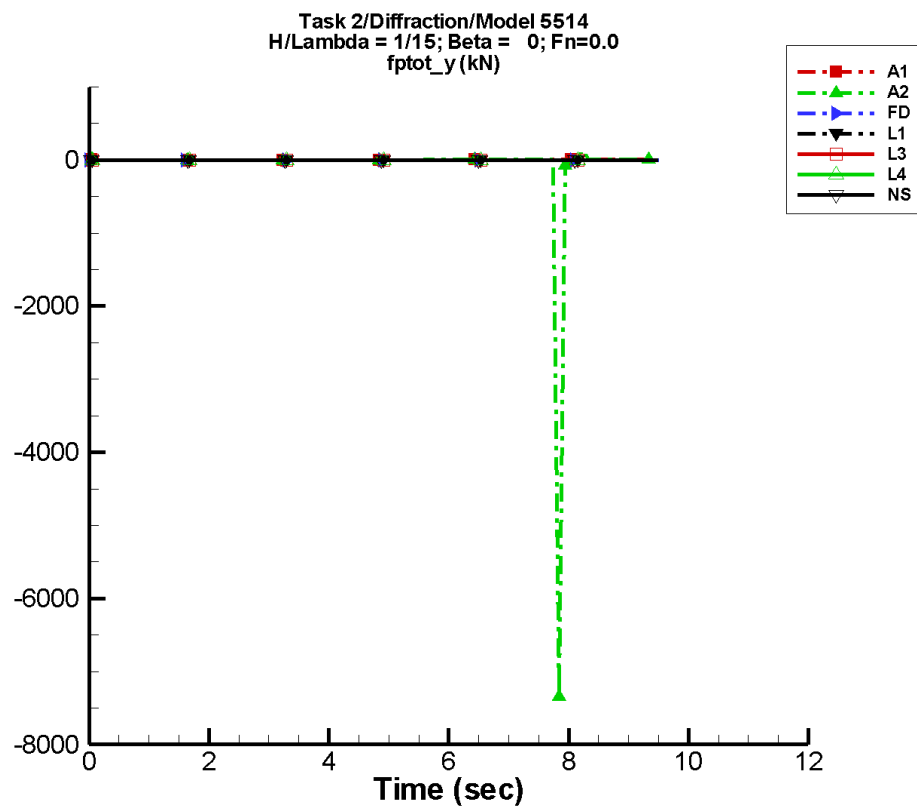
Table H-163. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.10E-02	5.71	159	1.61E-02	60
A2	-1.09E-02	5.71	159	1.61E-02	60
FD	7.55E-06	5.23E-06	8	1.64E-05	-57
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-9.74E-05	1.29E-03	-55	1.83E-03	-143

Table H-164. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.59	5.59	-5.49	5.56
A2	-5.59	5.60	-5.49	5.56
FD	-1.72E-04	1.79E-04	-7.25E-05	5.22E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.30E-02	5.19E-02	-4.37E-03	5.94E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-83. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

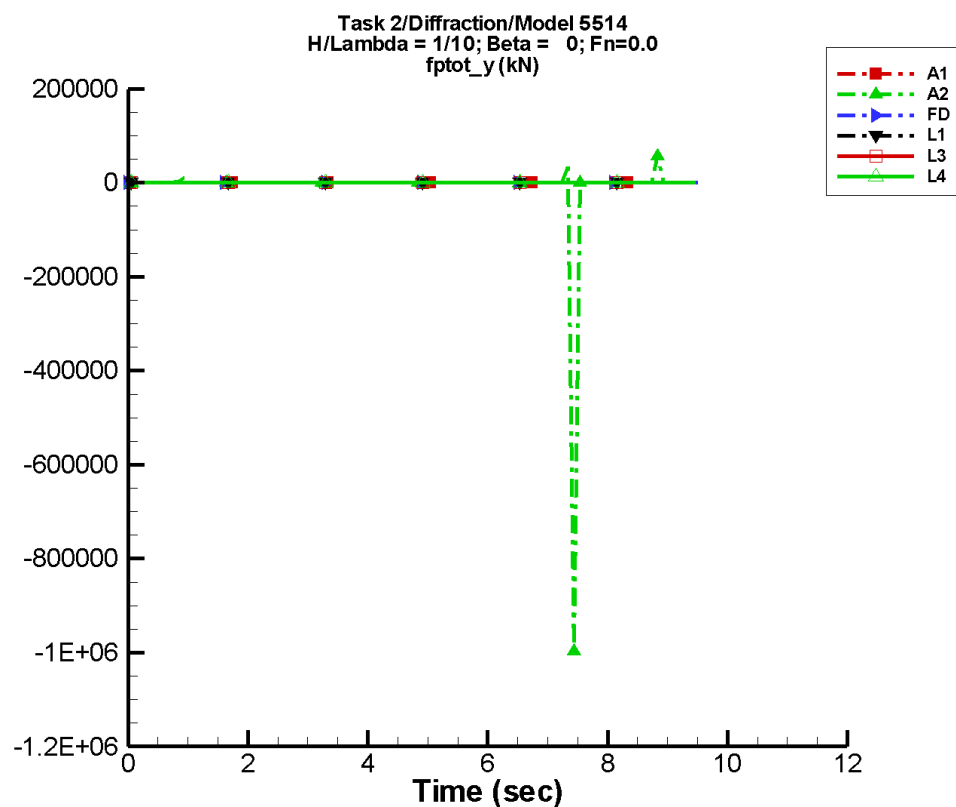
Table H-165. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.46E-02	7.60	159	2.15E-02	60
A2	-82.9	142.	-36	144.	32
FD	3.43E-06	1.04E-05	96	1.91E-05	158
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.21E-04	5.25E-04	-1	2.83E-04	111

Table H-166. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.44	7.45	-7.31	7.40
A2	-7.35E+03	139.	-977.	95.2
FD	-1.89E-04	1.91E-04	-4.27E-05	6.18E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.142	0.132	-5.92E-03	6.75E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-84. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

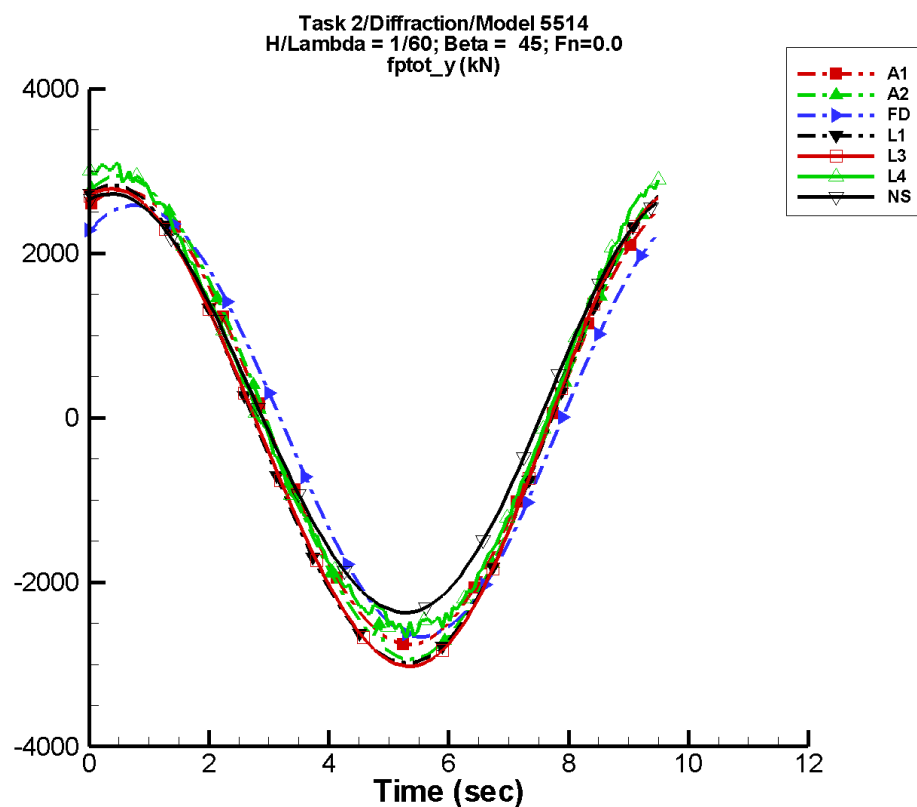
Table H-167. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.19E-02	11.4	159	3.23E-02	60
A2	-1.03E+04	1.93E+04	-18	1.90E+04	63
FD	-6.17E-06	5.48E-06	87	1.34E-05	169
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-168. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-11.2	11.2	-11.0	11.1
A2	-9.96E+05	5.67E+04	-1.28E+05	1.36E+04
FD	-2.08E-04	1.89E-04	-6.73E-05	5.39E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-85. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-169. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

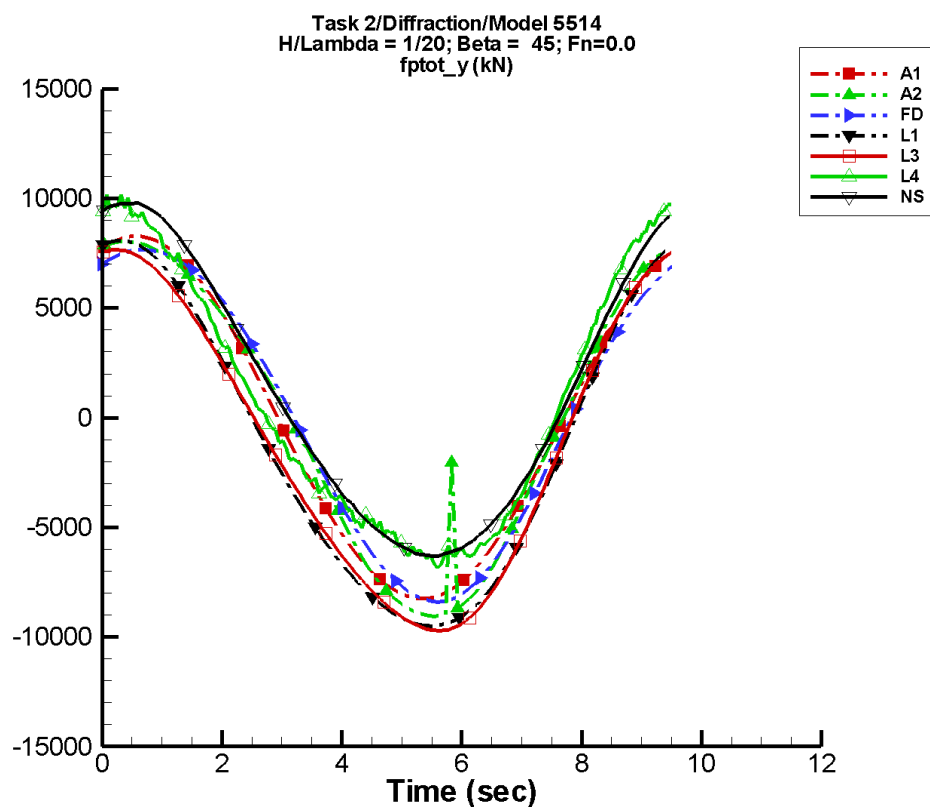
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.31	2.76E+03	64	4.96	15
A2	-1.21	2.91E+03	64	27.1	103
FD	1.08E-02	2.62E+03	55	44.5	-178
L1	-139.	2.90E+03	69	91.2	93
L3	-139.	2.90E+03	69	98.6	124
L4	97.4	2.80E+03	69	176.	85
NF	—	—	—	—	—
NS	144.	2.55E+03	73	62.3	116

Table H-170. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.76E+03	2.77E+03	-2.73E+03	2.73E+03
A2	-2.94E+03	2.94E+03	-2.89E+03	2.90E+03
FD	-2.66E+03	2.58E+03	-2.63E+03	2.55E+03
L1	-2.98E+03	2.83E+03	-2.97E+03	2.82E+03
L3	-3.02E+03	2.79E+03	-3.01E+03	2.78E+03
L4	-2.67E+03	3.09E+03	-2.56E+03	3.04E+03
NF	—	—	—	—
NS	-2.37E+03	2.72E+03	-2.34E+03	2.70E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-86. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

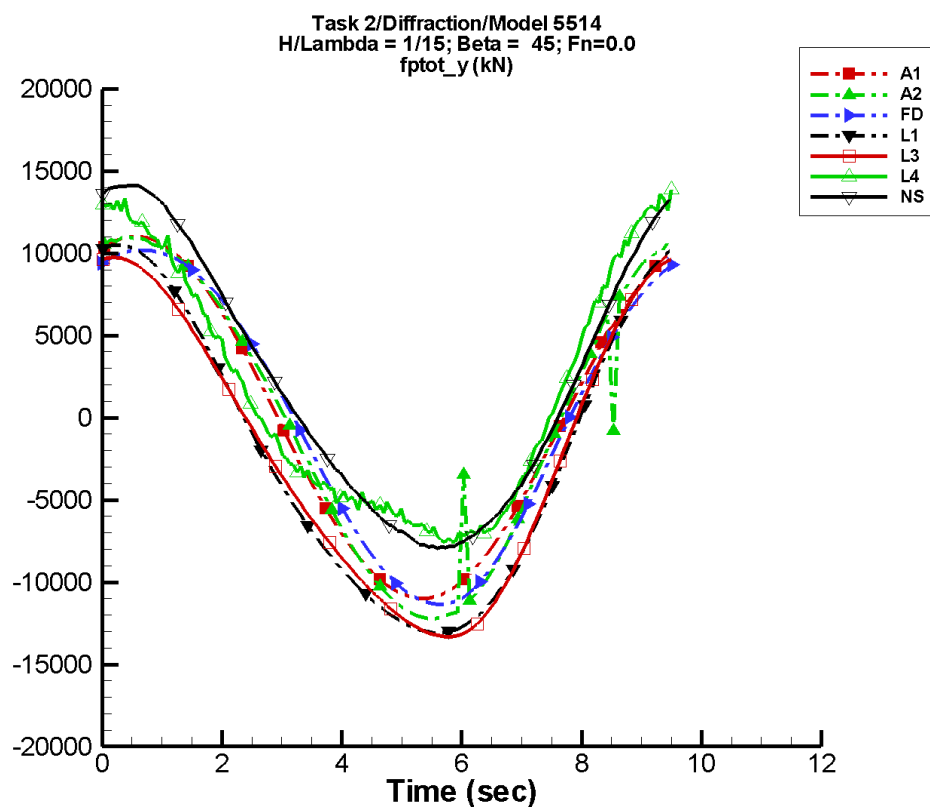
Table H-171. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.89	8.26E+03	64	14.9	15
A2	54.2	8.35E+03	62	617.	171
FD	-2.21	8.03E+03	56	383.	-180
L1	-1.25E+03	8.71E+03	69	814.	93
L3	-1.25E+03	8.55E+03	68	874.	119
L4	808.	7.89E+03	71	1.33E+03	94
NF	—	—	—	—	—
NS	1.21E+03	7.92E+03	68	729.	86

Table H-172. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.25E+03	8.28E+03	-8.16E+03	8.17E+03
A2	-9.05E+03	8.03E+03	-8.66E+03	7.97E+03
FD	-8.39E+03	7.66E+03	-8.29E+03	7.59E+03
L1	-9.50E+03	8.10E+03	-9.47E+03	8.05E+03
L3	-9.71E+03	7.68E+03	-9.68E+03	7.64E+03
L4	-6.87E+03	1.02E+04	-6.39E+03	9.75E+03
NF	—	—	—	—
NS	-6.32E+03	9.78E+03	-6.22E+03	9.69E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-87. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

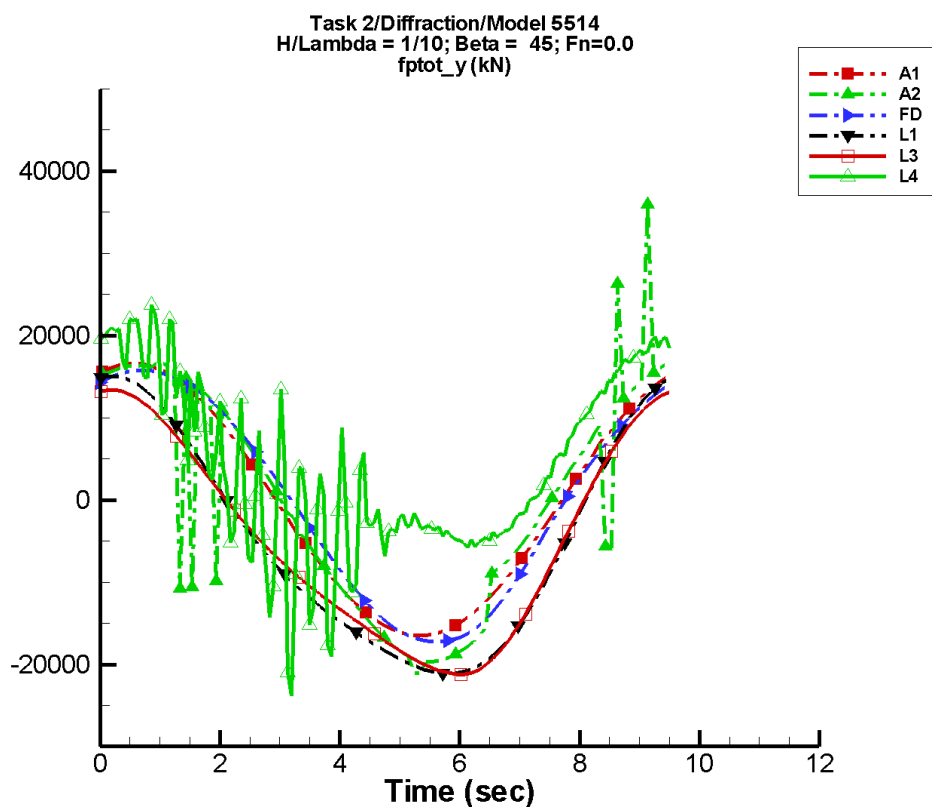
Table H-173. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-13.2	1.10E+04	64	19.8	15
A2	35.6	1.15E+04	62	527.	-167
FD	-5.56	1.08E+04	57	628.	-180
L1	-2.22E+03	1.16E+04	69	1.44E+03	93
L3	-2.22E+03	1.12E+04	68	1.52E+03	116
L4	1.52E+03	9.91E+03	75	2.13E+03	95
NF	—	—	—	—	—
NS	2.25E+03	1.07E+04	67	1.31E+03	88

Table H-174. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.10E+04	1.10E+04	-1.09E+04	1.09E+04
A2	-1.22E+04	1.73E+04	-1.20E+04	1.08E+04
FD	-1.13E+04	1.02E+04	-1.12E+04	1.01E+04
L1	-1.31E+04	1.05E+04	-1.31E+04	1.05E+04
L3	-1.33E+04	9.78E+03	-1.33E+04	9.72E+03
L4	-7.58E+03	1.39E+04	-7.31E+03	1.31E+04
NF	—	—	—	—
NS	-7.96E+03	1.41E+04	-7.85E+03	1.40E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-88. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

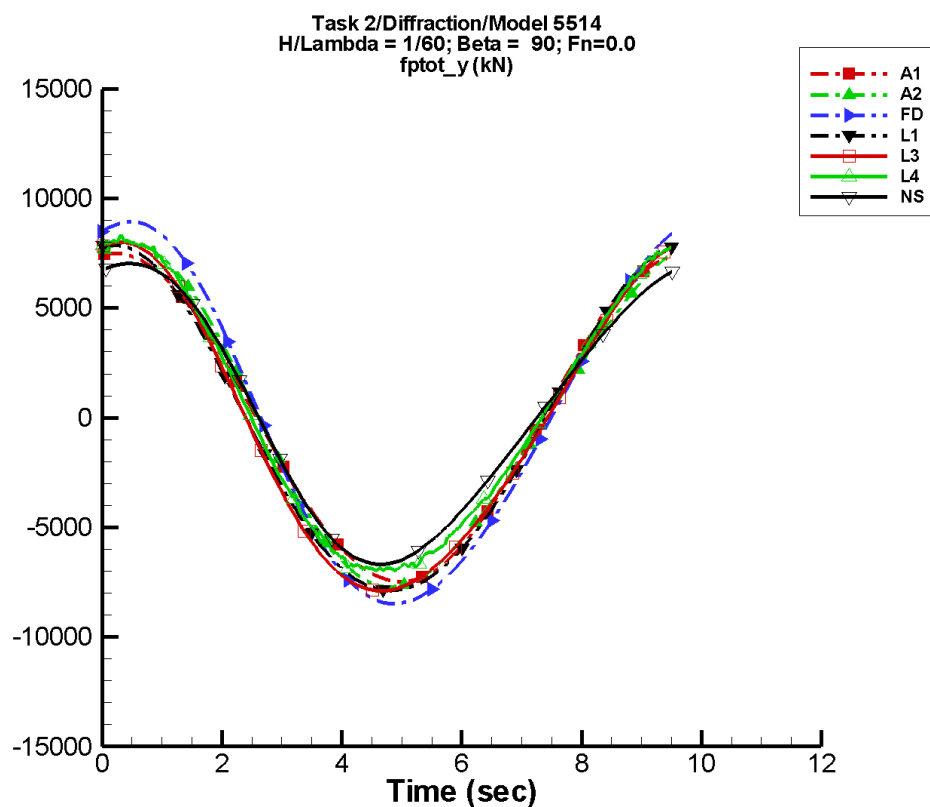
Table H-175. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-19.8	1.65E+04	64	29.7	15
A2	-406.	1.74E+04	73	2.55E+03	177
FD	-1.79	1.65E+04	57	905.	-174
L1	-4.99E+03	1.74E+04	69	3.25E+03	93
L3	-4.98E+03	1.63E+04	67	3.20E+03	107
L4	4.29E+03	1.26E+04	84	4.45E+03	67
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-176. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.65E+04	1.66E+04	-1.63E+04	1.63E+04
A2	-2.10E+04	3.59E+04	-1.98E+04	1.86E+04
FD	-1.73E+04	1.57E+04	-1.71E+04	1.56E+04
L1	-2.11E+04	1.51E+04	-2.11E+04	1.50E+04
L3	-2.12E+04	1.34E+04	-2.11E+04	1.33E+04
L4	-2.38E+04	2.38E+04	-6.71E+03	1.99E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-89. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-177. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

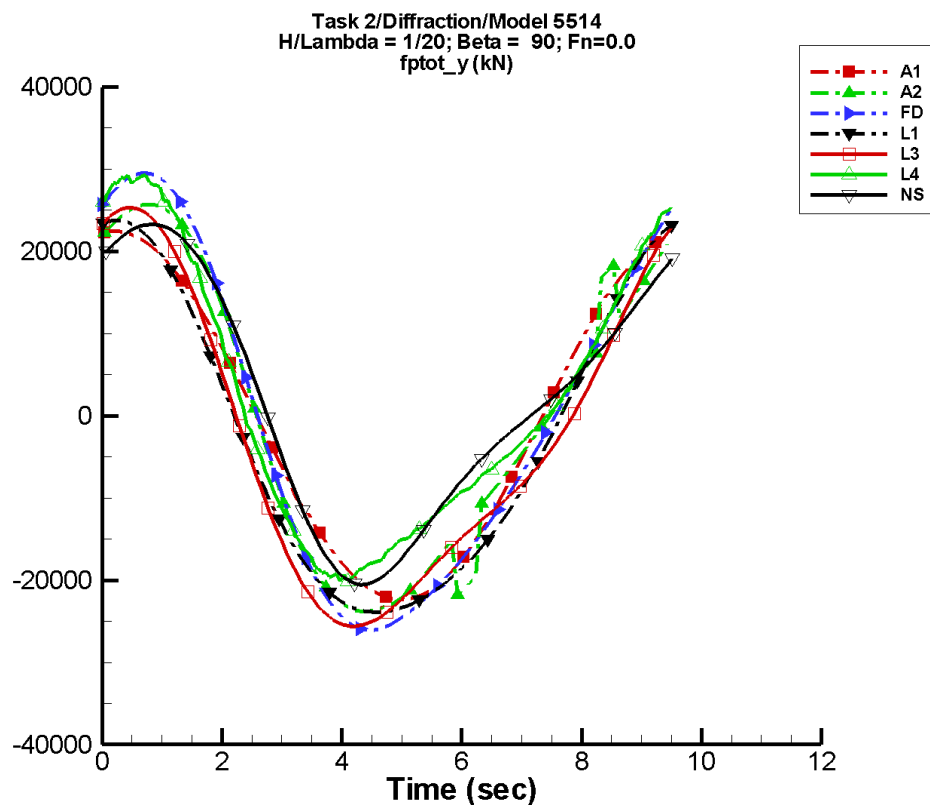
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.60	7.49E+03	78	13.5	30
A2	-4.59	7.72E+03	76	582.	-16
FD	-0.681	8.66E+03	73	582.	-11
L1	-303.	7.87E+03	82	344.	46
L3	-303.	7.86E+03	82	659.	18
L4	177.	7.51E+03	81	659.	17
NF	—	—	—	—	—
NS	222.	6.73E+03	83	704.	-17

Table H-178. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.48E+03	7.50E+03	-7.39E+03	7.50E+03
A2	-7.73E+03	7.98E+03	-7.64E+03	7.87E+03
FD	-8.48E+03	8.94E+03	-8.39E+03	8.87E+03
L1	-7.88E+03	7.88E+03	-7.85E+03	7.87E+03
L3	-7.90E+03	8.01E+03	-7.87E+03	7.97E+03
L4	-7.08E+03	8.35E+03	-6.95E+03	8.06E+03
NF	—	—	—	—
NS	-6.69E+03	7.05E+03	-6.61E+03	6.96E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-90. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

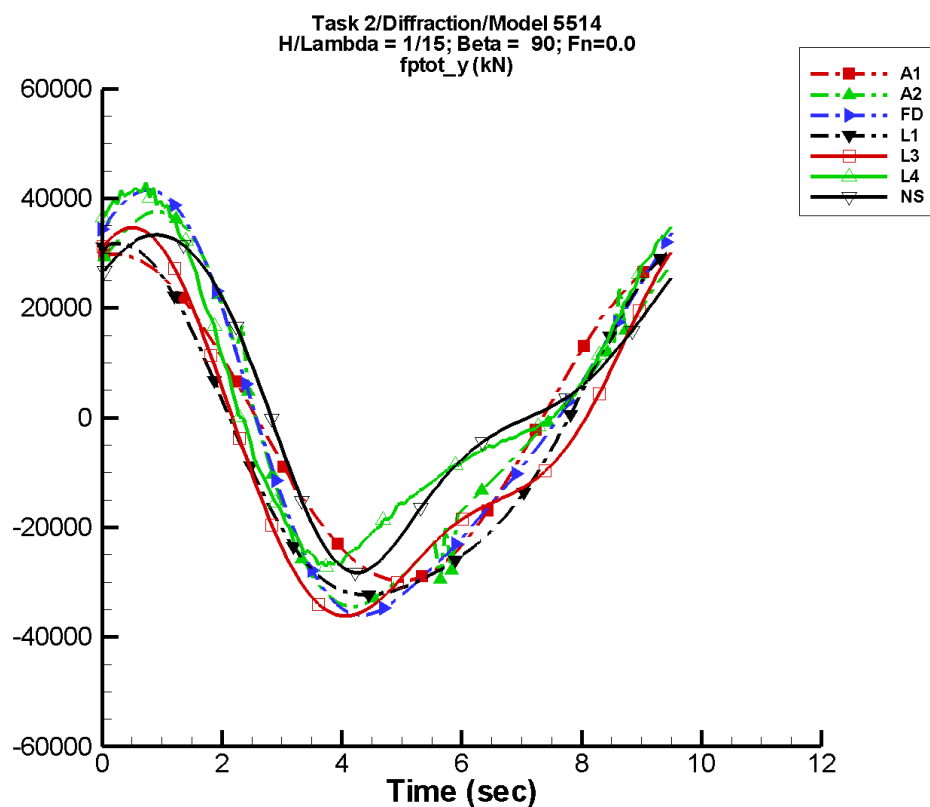
Table H-179. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-19.7	2.24E+04	78	40.4	30
A2	-30.1	2.42E+04	75	4.29E+03	-18
FD	-14.7	2.66E+04	73	4.87E+03	-12
L1	-2.70E+03	2.36E+04	82	3.08E+03	46
L3	-2.70E+03	2.34E+04	82	5.80E+03	18
L4	1.93E+03	2.20E+04	82	6.20E+03	20
NF	—	—	—	—	—
NS	1.86E+03	1.94E+04	80	5.53E+03	-20

Table H-180. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.24E+04	2.24E+04	-2.21E+04	2.24E+04
A2	-2.38E+04	3.28E+04	-2.36E+04	2.58E+04
FD	-2.61E+04	2.95E+04	-2.58E+04	2.91E+04
L1	-2.39E+04	2.38E+04	-2.38E+04	2.36E+04
L3	-2.56E+04	2.53E+04	-2.55E+04	2.52E+04
L4	-2.02E+04	2.93E+04	-1.96E+04	2.89E+04
NF	—	—	—	—
NS	-2.06E+04	2.33E+04	-2.01E+04	2.30E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-91. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

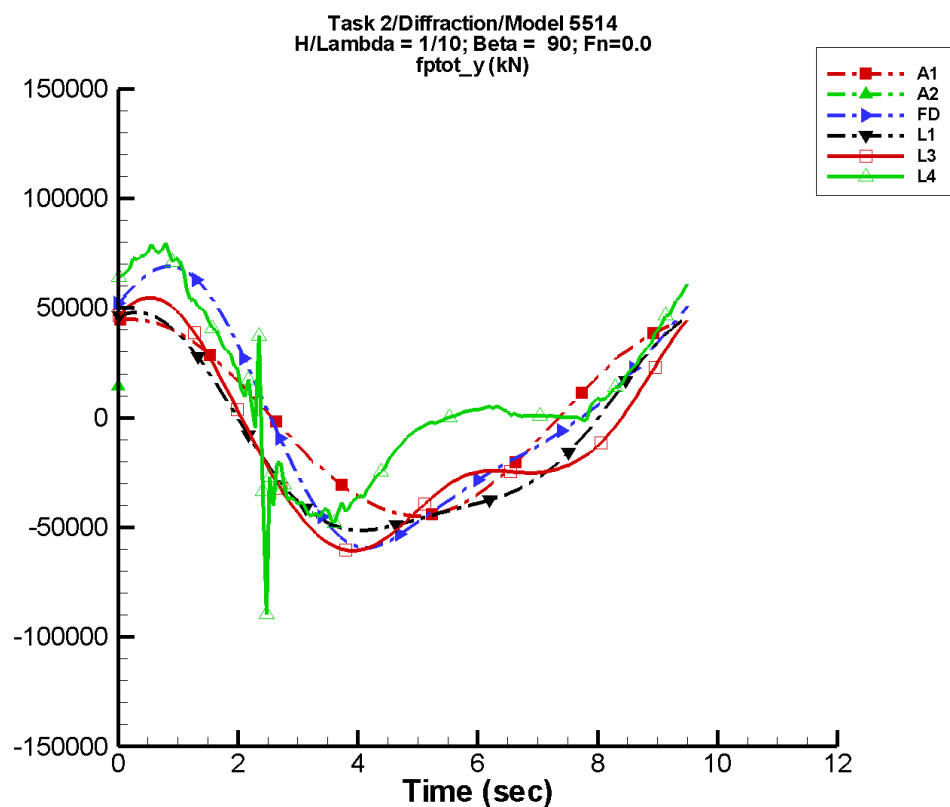
Table H–181. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-26.3	2.98E+04	78	53.8	30
A2	-27.2	3.26E+04	75	9.52E+03	-21
FD	-29.9	3.61E+04	73	8.55E+03	-12
L1	-4.80E+03	3.15E+04	82	5.48E+03	46
L3	-4.78E+03	3.10E+04	82	1.01E+04	18
L4	3.65E+03	2.84E+04	84	1.14E+04	22
NF	—	—	—	—	—
NS	3.40E+03	2.56E+04	79	9.41E+03	-19

Table H–182. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.98E+04	2.99E+04	-2.95E+04	2.99E+04
A2	-3.45E+04	3.76E+04	-3.39E+04	3.70E+04
FD	-3.60E+04	4.15E+04	-3.56E+04	4.08E+04
L1	-3.23E+04	3.18E+04	-3.23E+04	3.16E+04
L3	-3.62E+04	3.47E+04	-3.60E+04	3.45E+04
L4	-2.72E+04	4.29E+04	-2.65E+04	4.14E+04
NF	—	—	—	—
NS	-2.83E+04	3.33E+04	-2.78E+04	3.31E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-92. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

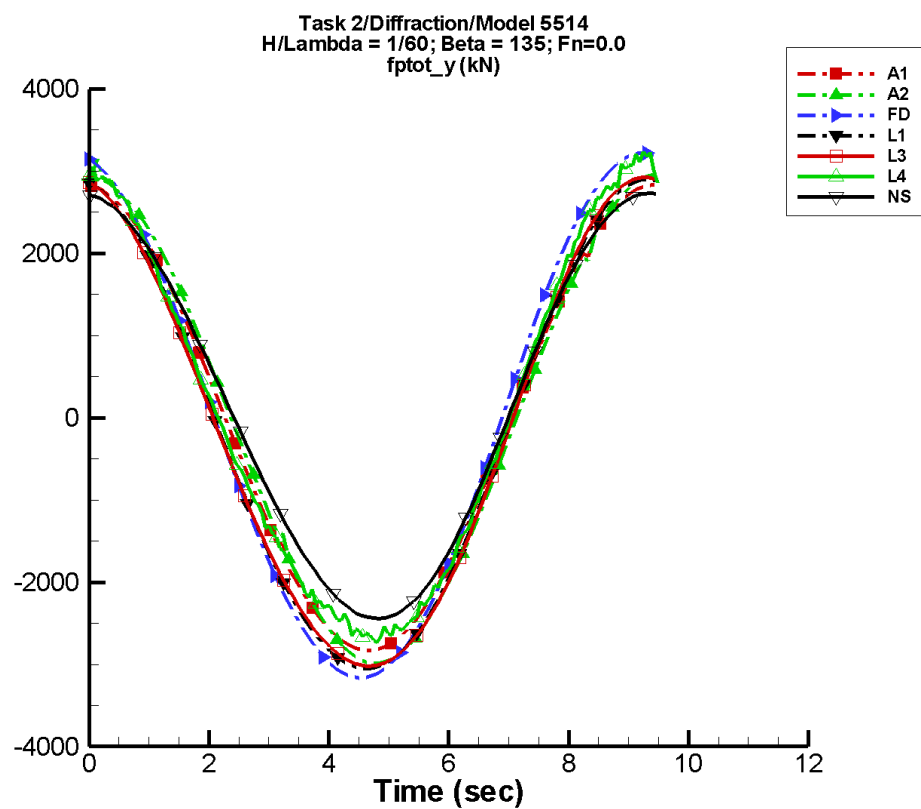
Table H-183. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-39.5	4.48E+04	78	80.8	30
A2	5.11E+04	6.49E+04	109	2.26E+04	54
FD	-59.3	5.56E+04	74	1.85E+04	-12
L1	-1.08E+04	4.72E+04	82	1.23E+04	46
L3	-1.07E+04	4.56E+04	82	2.14E+04	20
L4	9.55E+03	3.98E+04	91	2.87E+04	28
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-184. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.47E+04	4.49E+04	-4.42E+04	4.49E+04
A2	1.43E+04	2.04E+04	1.43E+04	2.04E+04
FD	-5.93E+04	6.90E+04	-5.96E+04	6.76E+04
L1	-5.13E+04	4.81E+04	-5.12E+04	4.77E+04
L3	-6.07E+04	5.47E+04	-6.03E+04	5.42E+04
L4	-1.04E+05	7.97E+04	-4.45E+04	7.66E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-93. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–185. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

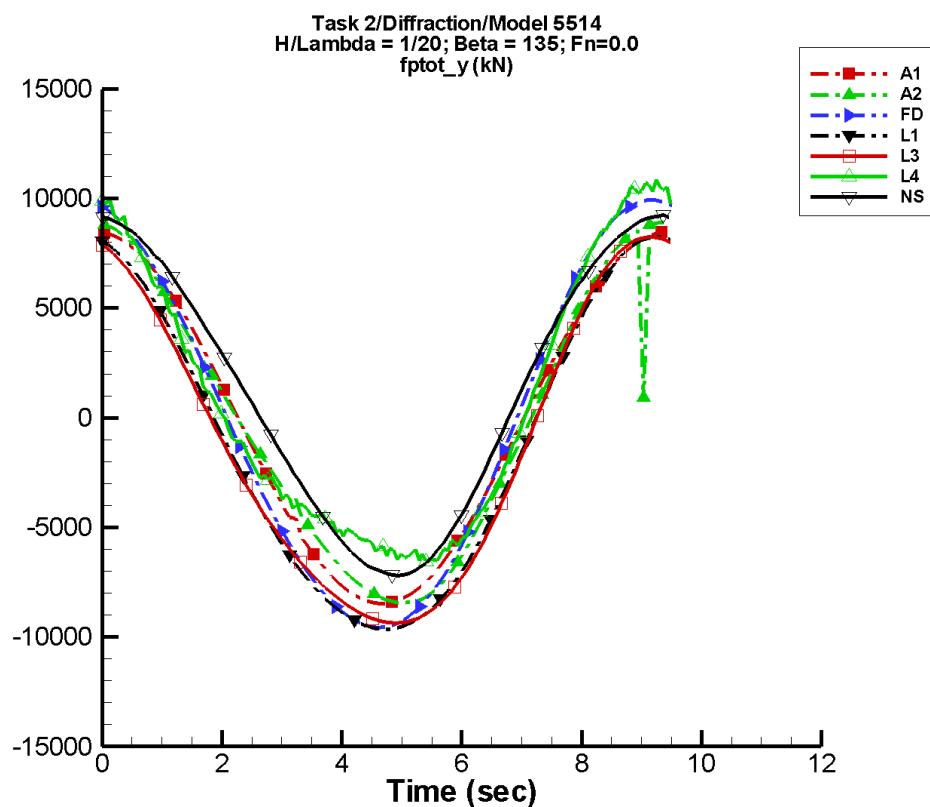
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.93	2.83E+03	89	4.23	28
A2	-1.80	2.95E+03	86	14.5	-172
FD	2.72E-02	3.19E+03	95	44.6	156
L1	-139.	2.97E+03	94	72.8	128
L3	-139.	2.97E+03	94	121.	139
L4	79.2	2.86E+03	93	209.	131
NF	—	—	—	—	—
NS	155.	2.58E+03	92	89.5	-168

Table H–186. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.83E+03	2.83E+03	-2.80E+03	2.80E+03
A2	-2.99E+03	3.15E+03	-2.95E+03	2.96E+03
FD	-3.17E+03	3.22E+03	-3.13E+03	3.18E+03
L1	-3.05E+03	2.90E+03	-3.04E+03	2.88E+03
L3	-3.02E+03	2.92E+03	-3.01E+03	2.91E+03
L4	-2.74E+03	3.24E+03	-2.65E+03	3.13E+03
NF	—	—	—	—
NS	-2.44E+03	2.73E+03	-2.41E+03	2.70E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-94. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

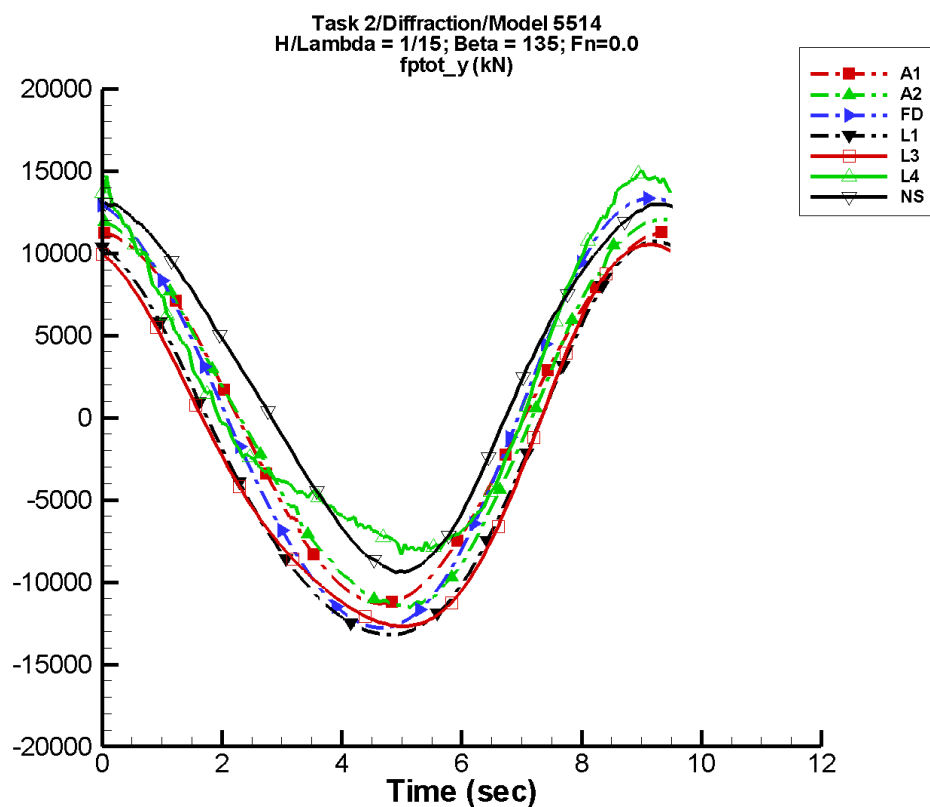
Table H–187. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.76	8.45E+03	89	12.7	28
A2	-75.5	8.40E+03	87	631.	152
FD	0.377	9.75E+03	94	382.	158
L1	-1.25E+03	8.91E+03	94	655.	128
L3	-1.25E+03	8.74E+03	94	997.	139
L4	756.	8.17E+03	94	1.77E+03	130
NF	—	—	—	—	—
NS	1.31E+03	8.08E+03	92	518.	-144

Table H–188. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.48E+03	8.48E+03	-8.38E+03	8.39E+03
A2	-8.44E+03	8.90E+03	-8.35E+03	8.73E+03
FD	-9.57E+03	9.92E+03	-9.47E+03	9.81E+03
L1	-9.64E+03	8.25E+03	-9.61E+03	8.21E+03
L3	-9.36E+03	8.24E+03	-9.33E+03	8.20E+03
L4	-6.55E+03	1.09E+04	-6.36E+03	1.05E+04
NF	—	—	—	—
NS	-7.20E+03	9.25E+03	-7.08E+03	9.10E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-95. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

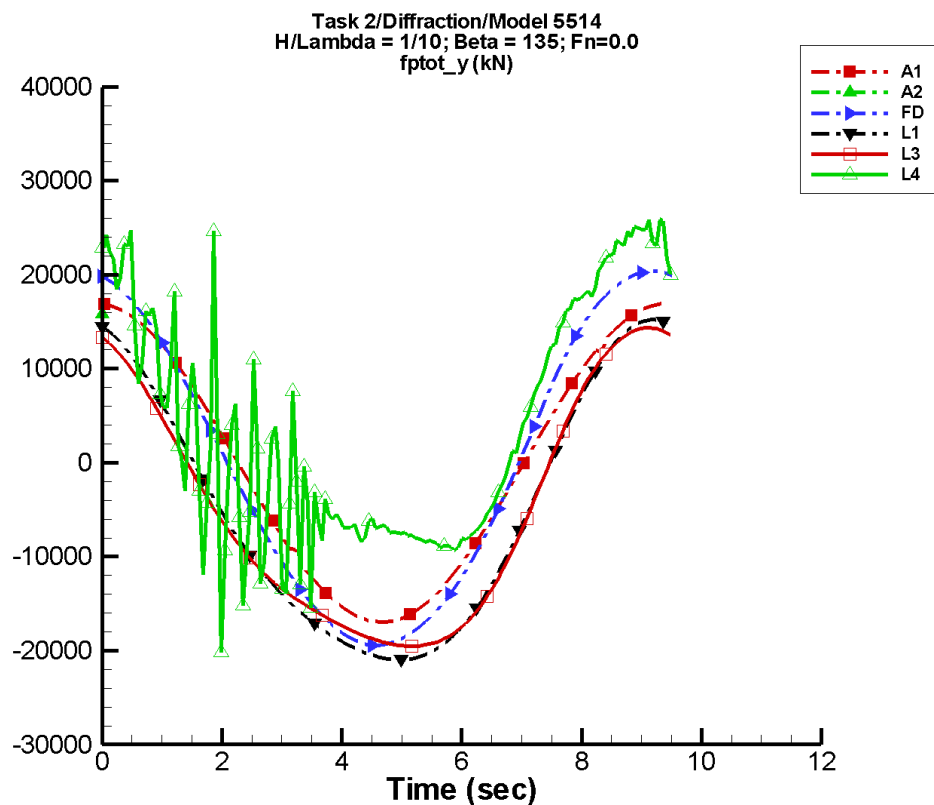
Table H–189. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-11.7	1.13E+04	89	16.9	28
A2	-9.60	1.17E+04	86	887.	149
FD	0.507	1.31E+04	94	626.	158
L1	-2.23E+03	1.19E+04	94	1.17E+03	128
L3	-2.23E+03	1.15E+04	94	1.68E+03	138
L4	1.47E+03	1.07E+04	95	2.85E+03	134
NF	—	—	—	—	—
NS	2.41E+03	1.10E+04	91	844.	-145

Table H–190. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.13E+04	1.13E+04	-1.12E+04	1.12E+04
A2	-1.16E+04	1.21E+04	-1.13E+04	1.19E+04
FD	-1.28E+04	1.33E+04	-1.27E+04	1.32E+04
L1	-1.32E+04	1.07E+04	-1.32E+04	1.06E+04
L3	-1.27E+04	1.05E+04	-1.27E+04	1.05E+04
L4	-8.31E+03	1.50E+04	-7.94E+03	1.46E+04
NF	—	—	—	—
NS	-9.41E+03	1.30E+04	-9.26E+03	1.30E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-96. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

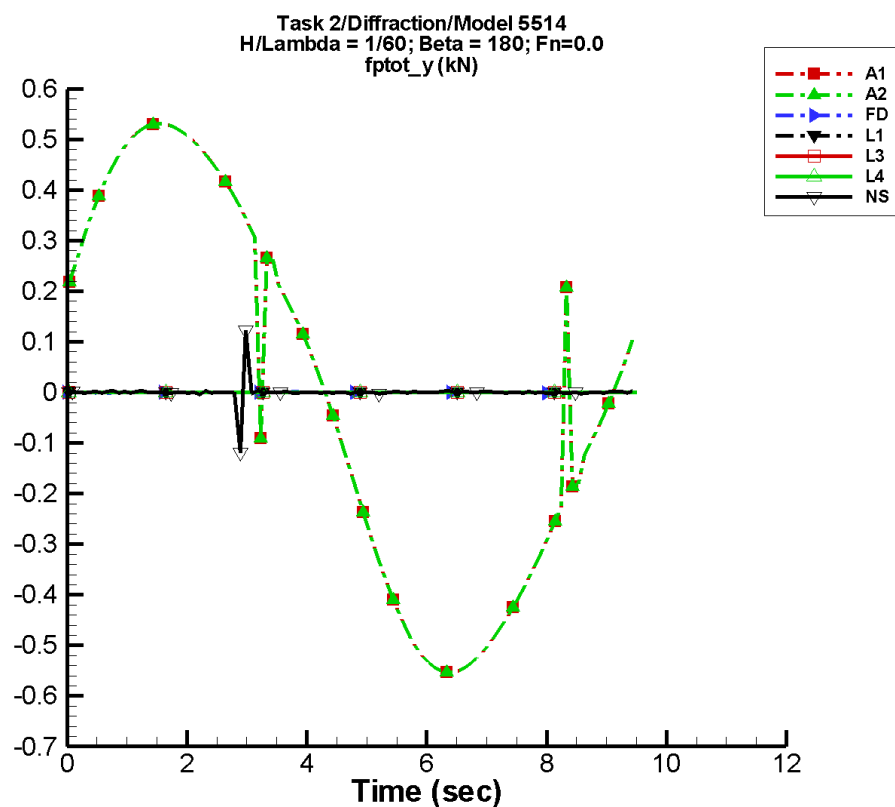
Table H–191. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-17.5	1.69E+04	89	25.3	28
A2	-2.07E+05	8.66E+05	43	4.84E+05	-122
FD	-5.55	2.00E+04	94	902.	153
L1	-5.01E+03	1.78E+04	94	2.62E+03	128
L3	-5.01E+03	1.67E+04	94	3.31E+03	133
L4	4.04E+03	1.58E+04	103	5.60E+03	134
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–192. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.70E+04	1.70E+04	-1.68E+04	1.68E+04
A2	1.49E+04	1.58E+04	1.49E+04	1.58E+04
FD	-1.94E+04	2.04E+04	-1.92E+04	2.02E+04
L1	-2.10E+04	1.52E+04	-2.09E+04	1.51E+04
L3	-1.95E+04	1.44E+04	-1.95E+04	1.42E+04
L4	-2.24E+04	2.59E+04	-8.86E+03	2.48E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-97. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–193. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

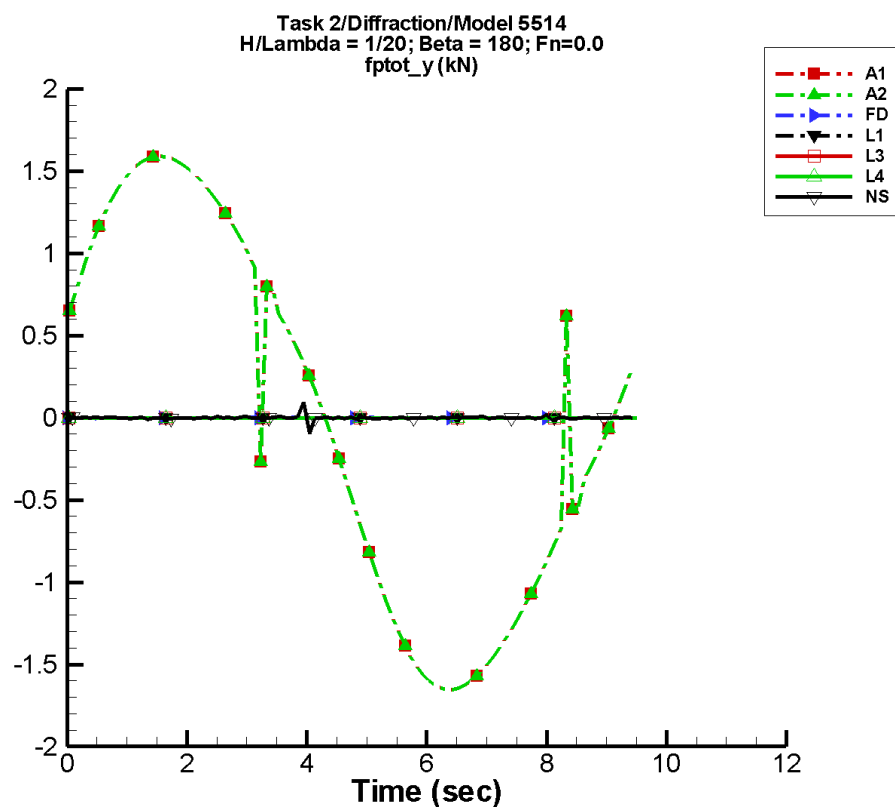
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.22E-03	0.527	18	2.69E-03	25
A2	-2.23E-03	0.527	18	2.70E-03	25
FD	-3.27E-05	1.25E-04	-80	7.48E-05	-152
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.22E-06	1.97E-04	-177	2.11E-04	40

Table H–194. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.553	0.566	-0.546	0.566
A2	-0.553	0.566	-0.546	0.566
FD	-2.96E-03	1.37E-03	-4.42E-04	1.76E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.119	0.122	-3.18E-03	3.23E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-98. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

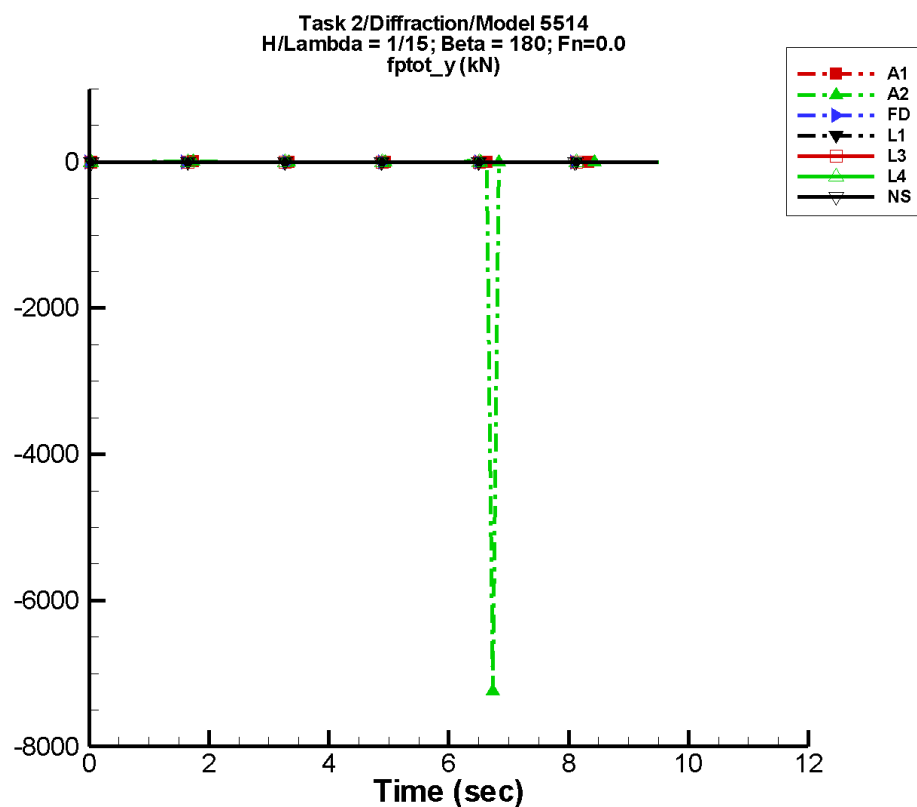
Table H–195. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.65E-03	1.58	18	8.06E-03	25
A2	37.0	79.6	77	90.3	62
FD	-5.74E-05	4.12E-04	-84	2.13E-04	-161
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-3.92E-04	3.42E-04	37	1.00E-03	-134

Table H–196. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.65	1.69	-1.63	1.69
A2	-1.65	6.27E+03	-71.6	837.
FD	-8.76E-03	5.17E-03	-1.34E-03	8.39E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.95E-02	9.46E-02	-3.79E-03	3.66E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-99. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

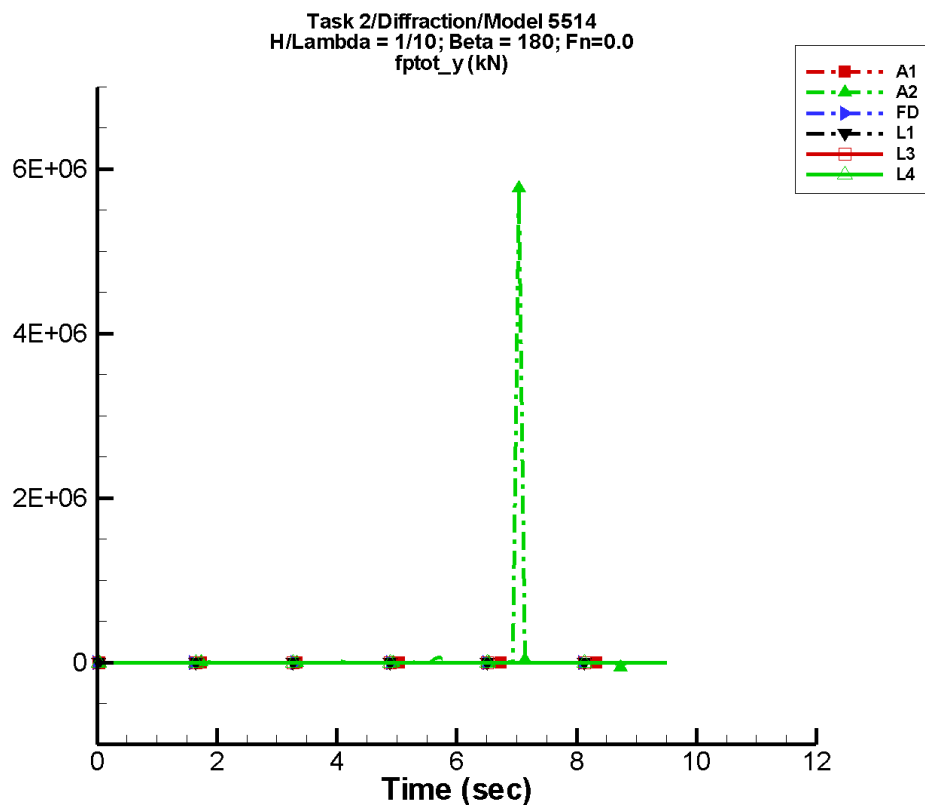
Table H–197. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.86E-03	2.10	18	1.07E-02	25
A2	-77.9	159.	9	142.	114
FD	-6.04E-05	5.86E-04	-86	2.49E-04	-168
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-3.23E-04	1.31E-03	112	1.42E-03	69

Table H–198. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.20	2.26	-2.18	2.25
A2	-7.24E+03	20.4	-982.	82.4
FD	-1.17E-02	7.21E-03	-1.78E-03	1.39E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.190	0.195	-7.27E-03	5.46E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-100. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

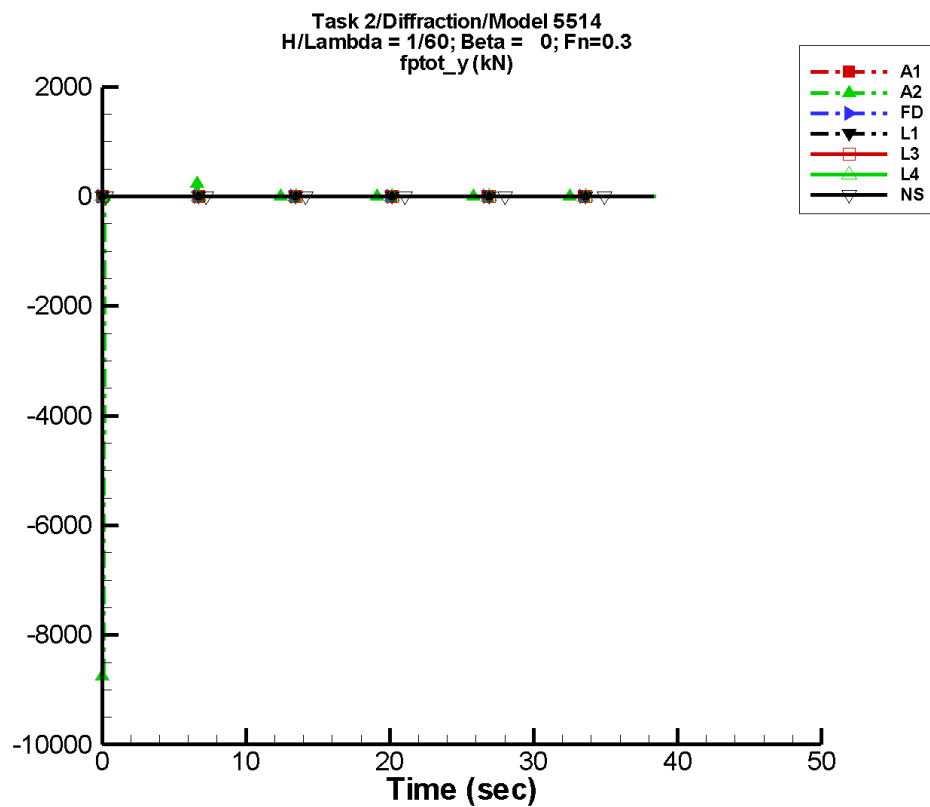
Table H–199. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.33E-02	3.15	18	1.61E-02	25
A2	6.46E+04	1.23E+05	177	1.12E+05	-88
FD	-1.59E-04	7.46E-04	-89	4.10E-04	-161
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–200. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.31	3.39	-3.27	3.38
A2	-6.18E+04	5.77E+06	-6.57E+04	7.76E+05
FD	-1.76E-02	1.09E-02	-2.72E-03	1.36E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-101. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–201. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

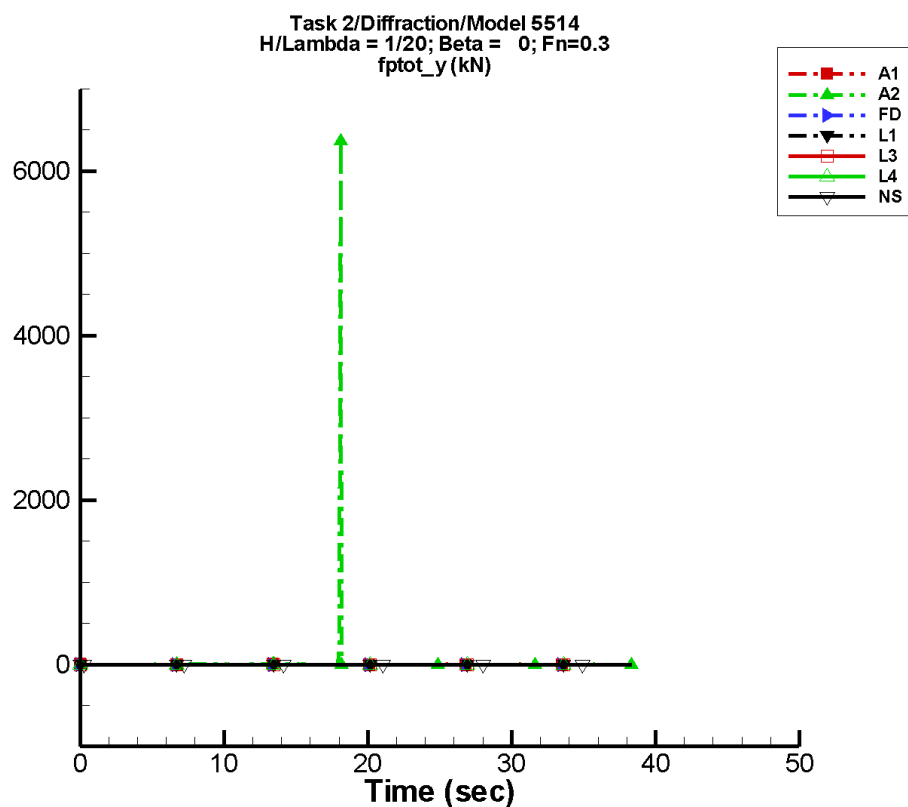
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.92E-04	7.58E-02	-32	9.59E-03	-67
A2	0.586	1.31	25	1.53	-29
FD	-8.84E-07	3.66E-06	119	6.43E-07	107
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.50E-04	1.57E-04	47	4.36E-04	143

Table H–202. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.251	0.270	-9.58E-02	0.100
A2	-0.250	231.	-2.63	30.8
FD	-1.34E-04	1.21E-04	-4.33E-05	3.55E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.58E-03	2.81E-03	-3.13E-03	2.00E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-102. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

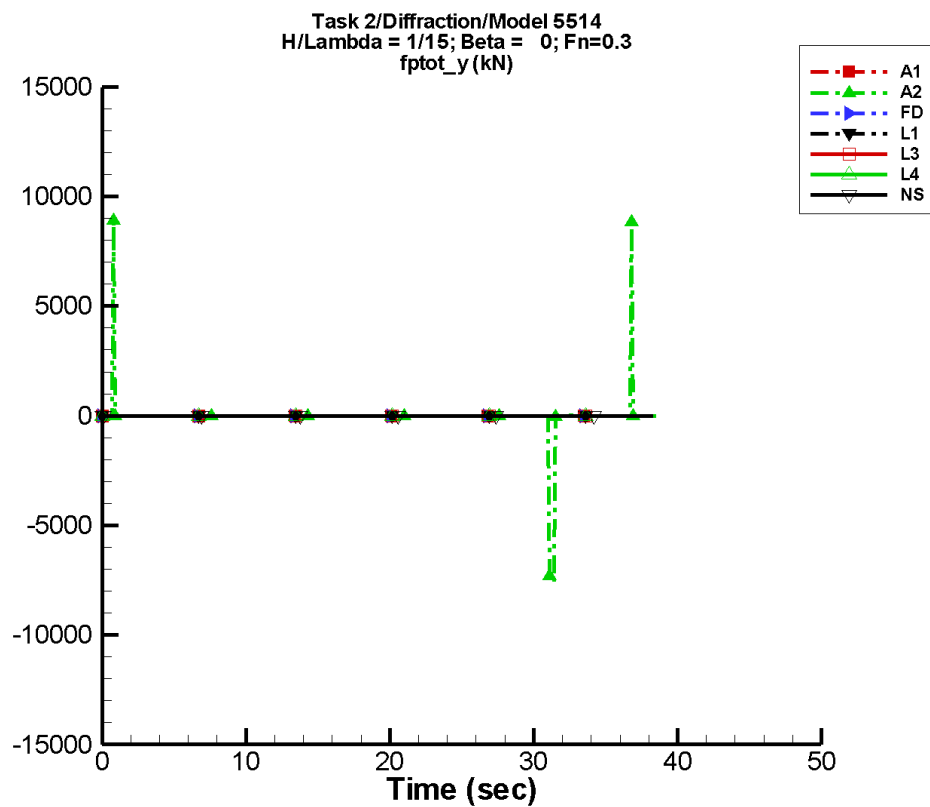
Table H–203. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.47E-03	0.227	-32	2.87E-02	-67
A2	18.1	34.7	-69	30.9	120
FD	4.04E-07	2.12E-06	77	1.91E-06	-34
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.01E-04	2.77E-03	-136	4.19E-03	-39

Table H–204. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.750	0.808	-0.286	0.300
A2	-0.749	6.37E+03	-74.8	878.
FD	-2.15E-04	1.57E-04	-4.61E-05	5.01E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.14E-02	9.42E-03	-9.37E-03	7.50E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-103. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

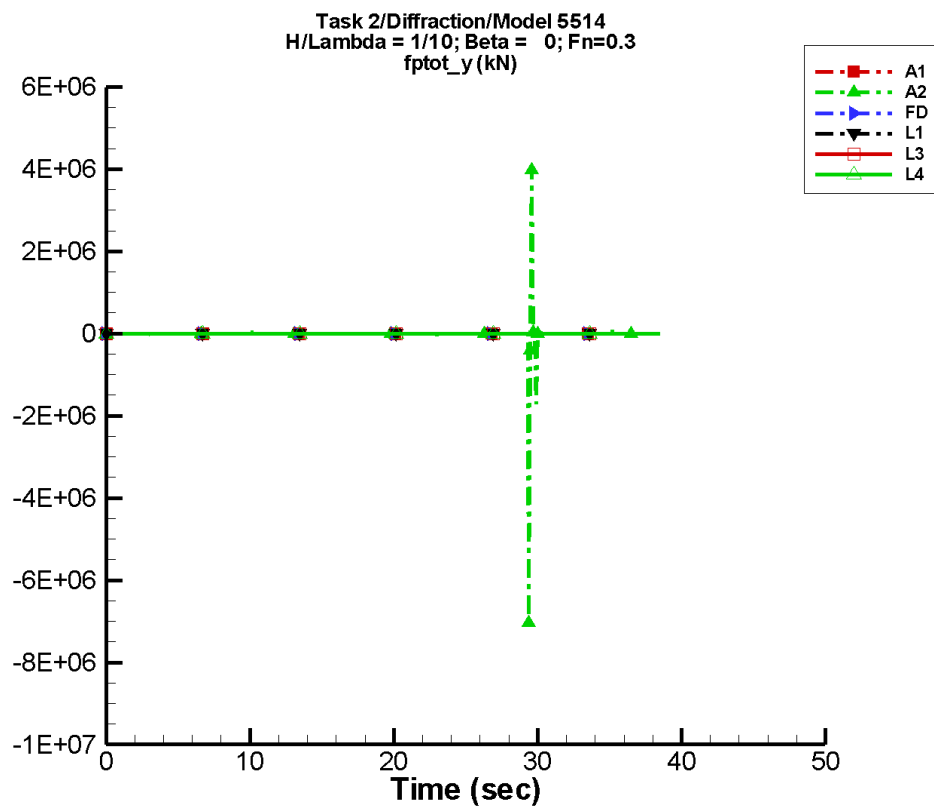
Table H–205. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.96E-03	0.302	-32	3.82E-02	-67
A2	-33.0	127.	18	210.	82
FD	-9.20E-07	2.23E-06	152	2.48E-06	-20
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.05E-04	1.17E-03	-15	1.70E-03	-107

Table H–206. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.998	1.08	-0.381	0.399
A2	-7.54E+03	8.90E+03	-3.75E+03	1.20E+03
FD	-1.66E-04	2.14E-04	-7.49E-05	4.25E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.76E-02	1.85E-02	-1.38E-02	1.60E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-104. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

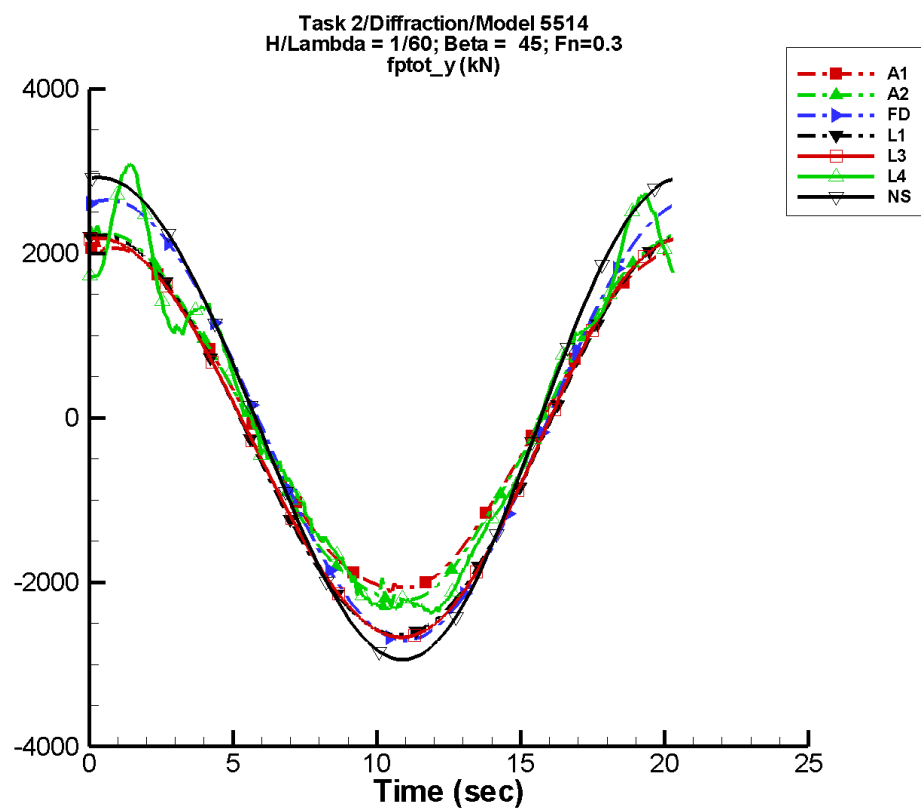
Table H–207. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.95E-03	0.454	-32	5.74E-02	-67
A2	-1.28E+04	2.65E+04	-1	2.28E+04	98
FD	3.79E-06	6.20E-06	22	4.71E-06	33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–208. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.50	1.62	-0.573	0.600
A2	-7.03E+06	3.98E+06	-6.05E+05	6.07E+04
FD	-2.90E-04	2.49E-04	-6.73E-05	6.21E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-105. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–209. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

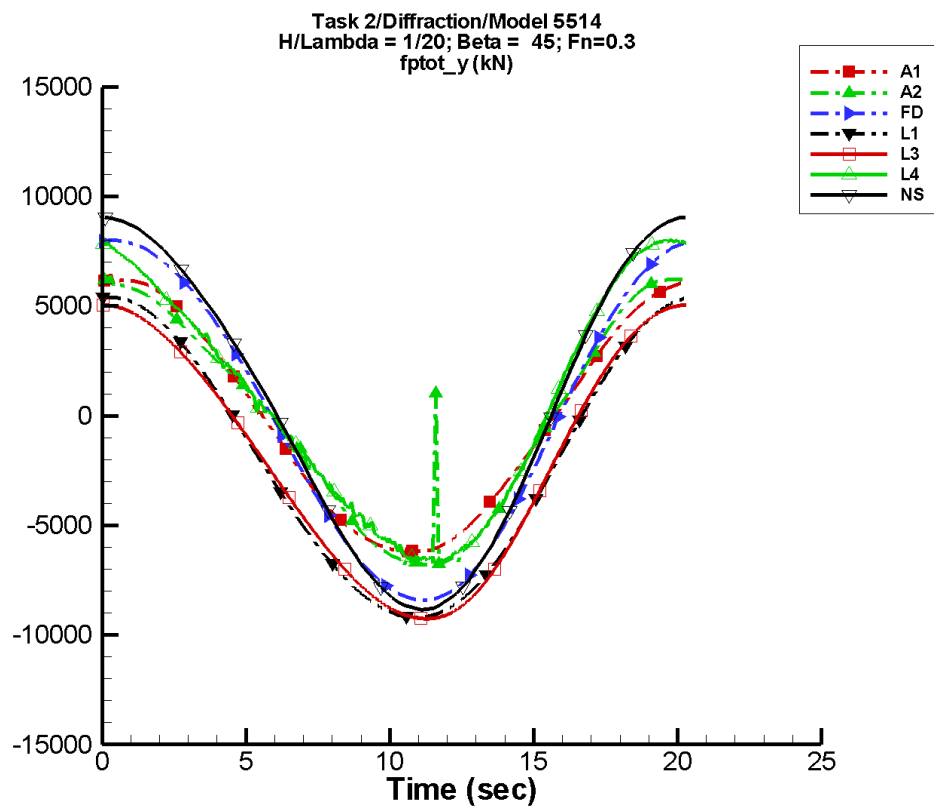
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.19	2.09E+03	74	4.96	2
A2	-2.14	2.23E+03	74	23.2	105
FD	-3.86	2.67E+03	65	41.1	166
L1	-227.	2.43E+03	78	32.4	125
L3	-227.	2.42E+03	78	70.6	167
L4	50.1	2.37E+03	77	121.	163
NF	—	—	—	—	—
NS	49.7	2.93E+03	79	101.	-164

Table H–210. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.16E+03	2.16E+03	-2.07E+03	2.07E+03
A2	-2.30E+03	2.34E+03	-2.21E+03	2.25E+03
FD	-2.71E+03	2.65E+03	-2.70E+03	2.64E+03
L1	-2.64E+03	2.22E+03	-2.64E+03	2.22E+03
L3	-2.67E+03	2.19E+03	-2.67E+03	2.19E+03
L4	-2.37E+03	3.10E+03	-2.34E+03	3.04E+03
NF	—	—	—	—
NS	-2.94E+03	2.93E+03	-2.91E+03	2.93E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-106. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

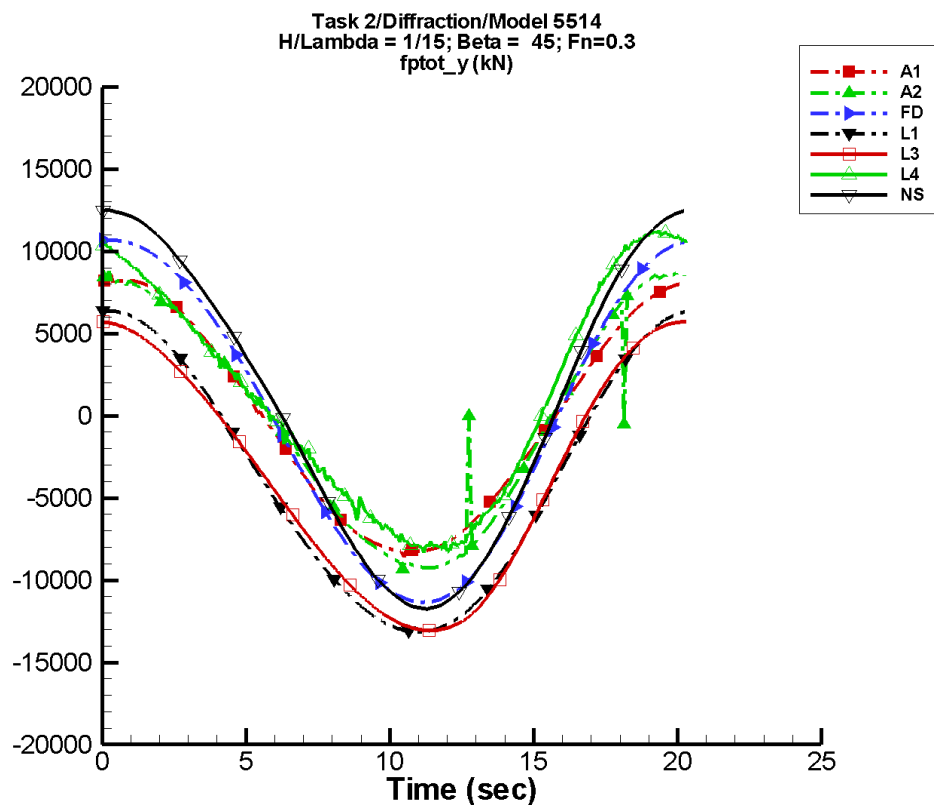
Table H–211. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.54	6.26E+03	74	14.8	2
A2	21.0	6.31E+03	72	694.	167
FD	-12.5	8.20E+03	66	379.	166
L1	-2.05E+03	7.28E+03	78	290.	125
L3	-2.05E+03	7.11E+03	77	563.	162
L4	627.	7.00E+03	80	1.10E+03	159
NF	—	—	—	—	—
NS	453.	8.83E+03	78	752.	-173

Table H–212. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.46E+03	6.46E+03	-6.18E+03	6.21E+03
A2	-6.88E+03	6.39E+03	-6.75E+03	6.23E+03
FD	-8.42E+03	8.00E+03	-8.39E+03	7.98E+03
L1	-9.21E+03	5.41E+03	-9.20E+03	5.42E+03
L3	-9.26E+03	5.06E+03	-9.25E+03	5.08E+03
L4	-6.75E+03	8.05E+03	-6.62E+03	7.98E+03
NF	—	—	—	—
NS	-8.85E+03	9.06E+03	-8.73E+03	9.04E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-107. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

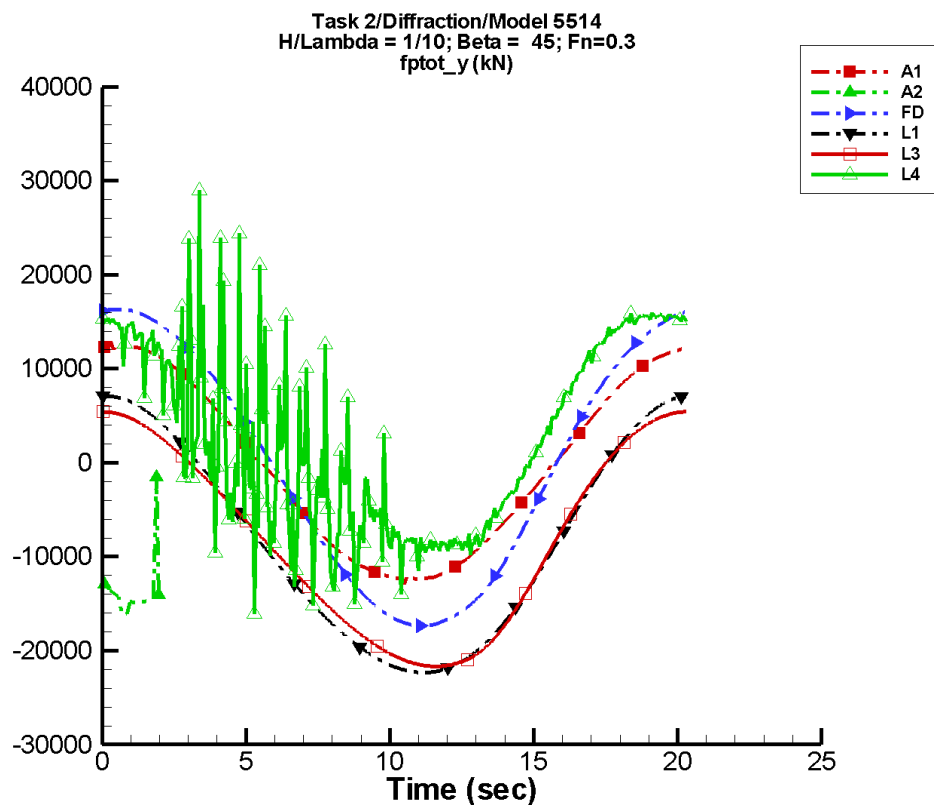
Table H–213. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.7	8.33E+03	74	19.7	2
A2	16.8	8.81E+03	77	752.	-179
FD	-18.3	1.11E+04	66	629.	167
L1	-3.64E+03	9.71E+03	78	515.	125
L3	-3.64E+03	9.32E+03	77	916.	159
L4	1.24E+03	9.09E+03	83	1.68E+03	159
NF	—	—	—	—	—
NS	783.	1.19E+04	77	1.02E+03	178

Table H–214. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.60E+03	8.60E+03	-8.23E+03	8.26E+03
A2	-9.34E+03	1.38E+04	-9.20E+03	8.53E+03
FD	-1.13E+04	1.07E+04	-1.13E+04	1.07E+04
L1	-1.31E+04	6.38E+03	-1.31E+04	6.40E+03
L3	-1.31E+04	5.71E+03	-1.30E+04	5.72E+03
L4	-8.32E+03	1.13E+04	-8.00E+03	1.11E+04
NF	—	—	—	—
NS	-1.17E+04	1.25E+04	-1.16E+04	1.25E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-108. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

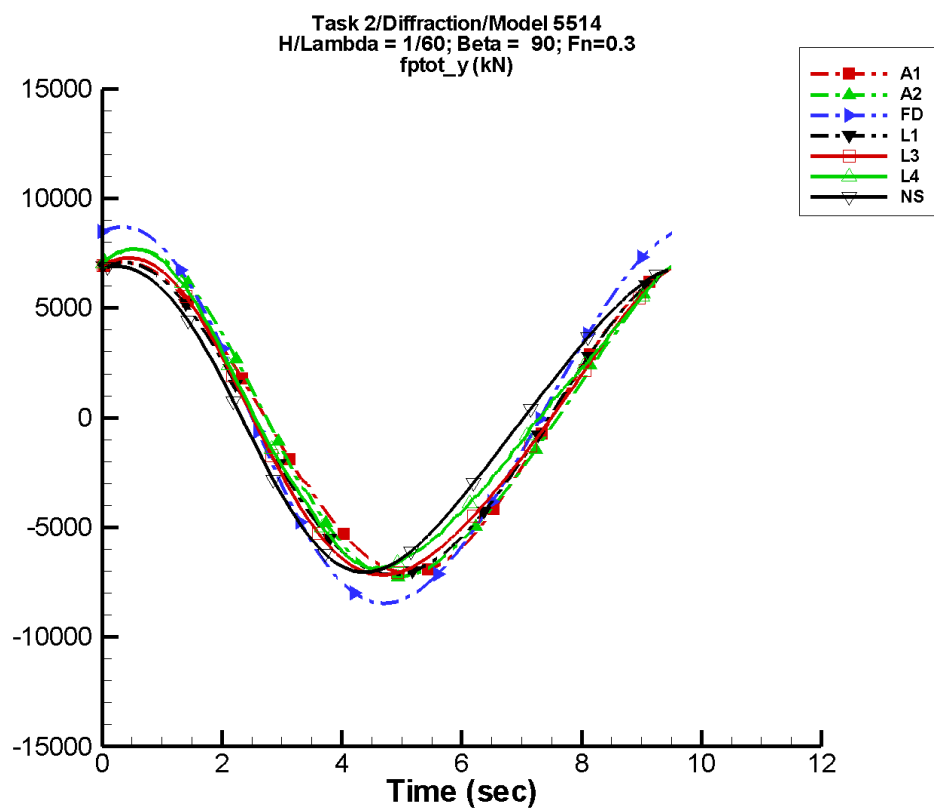
Table H–215. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-19.1	1.25E+04	74	29.7	2
A2	1.08E+04	2.56E+04	-51	1.50E+04	-164
FD	-19.6	1.69E+04	66	906.	173
L1	-8.19E+03	1.46E+04	78	1.16E+03	125
L3	-8.19E+03	1.34E+04	76	1.57E+03	151
L4	2.75E+03	1.19E+04	88	2.57E+03	146
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–216. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.29E+04	1.29E+04	-1.24E+04	1.24E+04
A2	-1.61E+04	1.37E+03	-1.54E+04	1.27E+03
FD	-1.74E+04	1.63E+04	-1.73E+04	1.63E+04
L1	-2.23E+04	7.09E+03	-2.23E+04	7.14E+03
L3	-2.17E+04	5.42E+03	-2.17E+04	5.46E+03
L4	-2.39E+04	2.90E+04	-9.18E+03	1.56E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-109. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-217. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

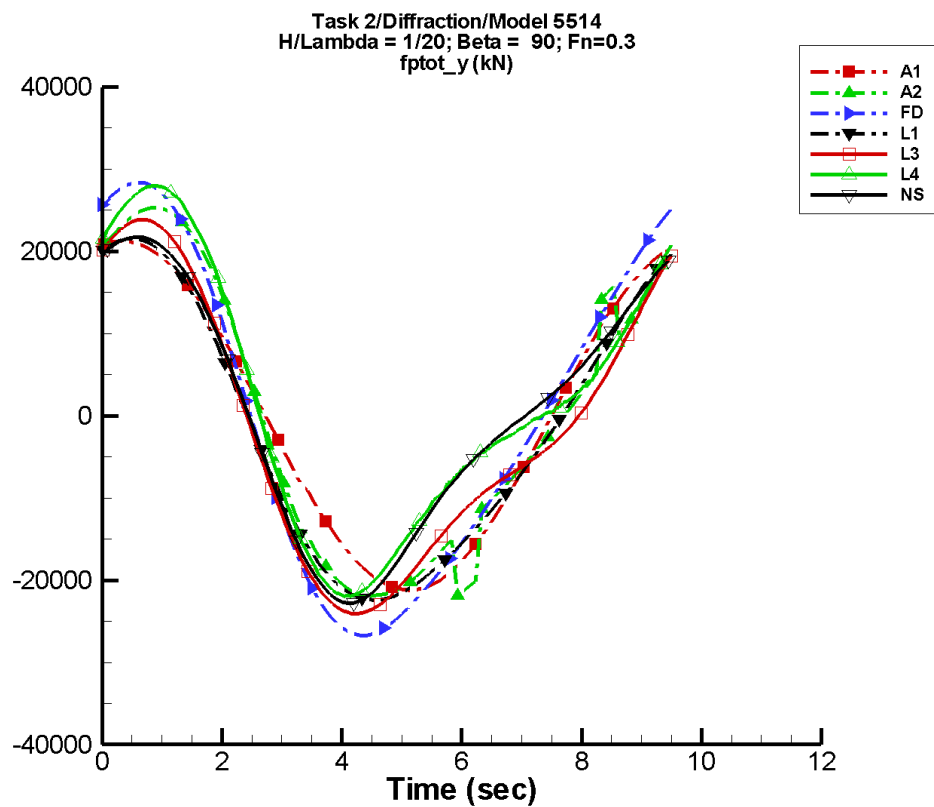
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.81	7.07E+03	72	11.3	31
A2	-3.81	7.32E+03	70	581.	-16
FD	-0.653	8.53E+03	79	582.	-11
L1	-201.	7.10E+03	78	343.	6
L3	-200.	7.09E+03	78	731.	-1
L4	221.	6.92E+03	79	863.	-9
NF	—	—	—	—	—
NS	33.9	6.82E+03	93	735.	-2

Table H-218. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.09E+03	7.10E+03	-7.01E+03	7.04E+03
A2	-7.26E+03	7.68E+03	-7.18E+03	7.57E+03
FD	-8.47E+03	8.69E+03	-8.38E+03	8.75E+03
L1	-7.16E+03	7.09E+03	-7.13E+03	7.06E+03
L3	-7.17E+03	7.29E+03	-7.14E+03	7.25E+03
L4	-6.92E+03	7.71E+03	-6.83E+03	7.66E+03
NF	—	—	—	—
NS	-7.04E+03	6.91E+03	-6.96E+03	6.94E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-110. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

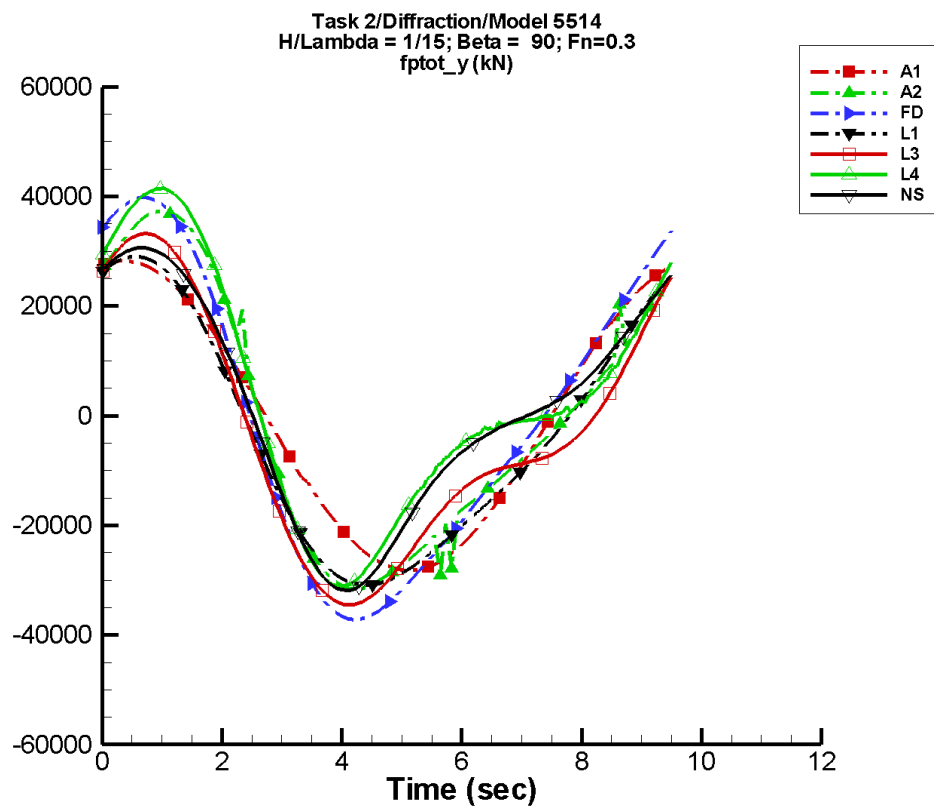
Table H–219. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-17.4	2.11E+04	72	33.7	31
A2	-27.8	2.30E+04	70	4.28E+03	-18
FD	-14.7	2.63E+04	79	4.87E+03	-12
L1	-1.78E+03	2.13E+04	78	3.09E+03	6
L3	-1.77E+03	2.11E+04	78	6.44E+03	-1
L4	2.00E+03	2.06E+04	77	8.22E+03	-10
NF	—	—	—	—	—
NS	384.	1.94E+04	90	5.68E+03	-5

Table H–220. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.12E+04	2.12E+04	-2.10E+04	2.11E+04
A2	-2.19E+04	3.17E+04	-2.18E+04	2.52E+04
FD	-2.67E+04	2.84E+04	-2.64E+04	2.79E+04
L1	-2.24E+04	2.15E+04	-2.23E+04	2.14E+04
L3	-2.41E+04	2.38E+04	-2.39E+04	2.37E+04
L4	-2.19E+04	2.79E+04	-2.17E+04	2.78E+04
NF	—	—	—	—
NS	-2.28E+04	2.17E+04	-2.23E+04	2.14E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-111. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

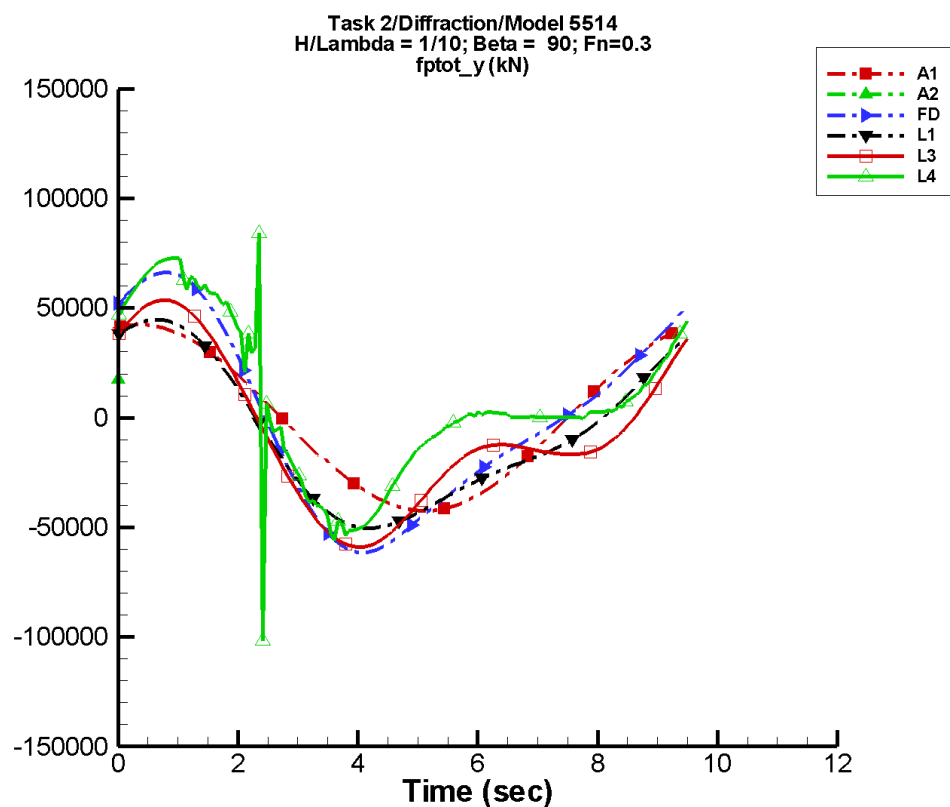
Table H-221. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-23.1	2.82E+04	72	44.9	31
A2	-24.0	3.10E+04	70	9.52E+03	-21
FD	-29.8	3.56E+04	79	8.55E+03	-12
L1	-3.16E+03	2.84E+04	78	5.50E+03	6
L3	-3.14E+03	2.79E+04	78	1.13E+04	-1
L4	3.58E+03	2.74E+04	76	1.43E+04	-9
NF	—	—	—	—	—
NS	959.	2.54E+04	89	9.62E+03	-5

Table H-222. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.82E+04	2.83E+04	-2.79E+04	2.80E+04
A2	-3.17E+04	3.73E+04	-3.11E+04	3.67E+04
FD	-3.72E+04	3.98E+04	-3.73E+04	3.91E+04
L1	-3.09E+04	2.90E+04	-3.08E+04	2.89E+04
L3	-3.45E+04	3.32E+04	-3.43E+04	3.30E+04
L4	-3.10E+04	4.15E+04	-3.07E+04	4.11E+04
NF	—	—	—	—
NS	-3.19E+04	3.07E+04	-3.14E+04	3.04E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-112. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

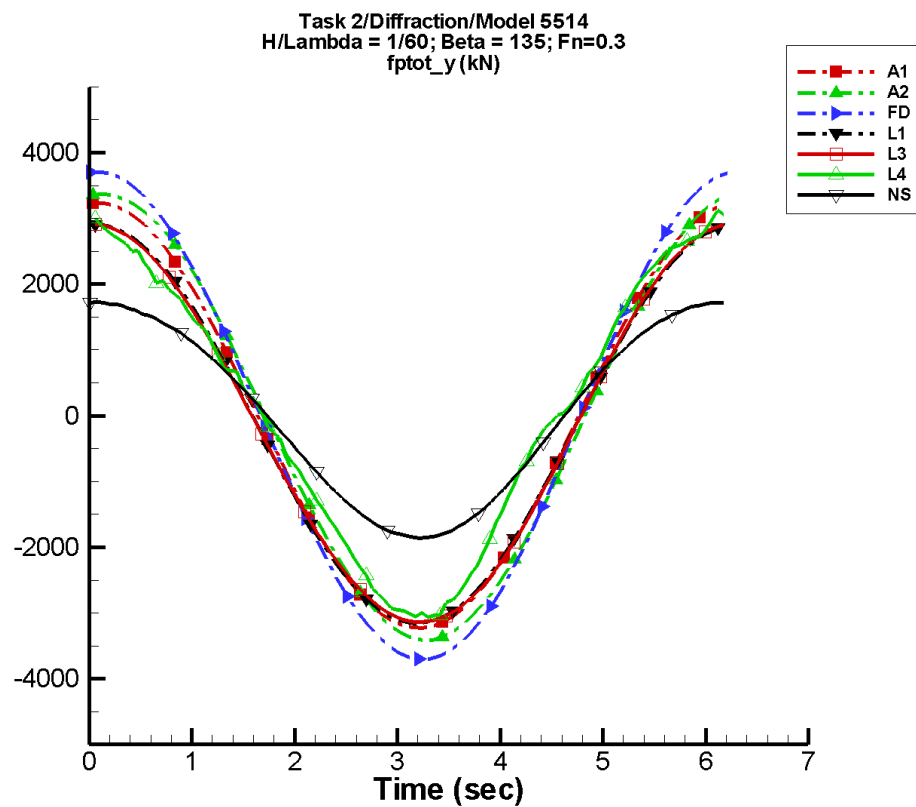
Table H-223. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-34.8	4.23E+04	72	67.5	31
A2	5.82E+04	1.79E+05	-101	1.31E+05	4
FD	-59.2	5.49E+04	79	1.85E+04	-12
L1	-7.09E+03	4.26E+04	78	1.24E+04	6
L3	-7.02E+03	4.10E+04	78	2.38E+04	-1
L4	7.46E+03	3.99E+04	79	2.89E+04	-2
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-224. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.24E+04	4.25E+04	-4.20E+04	4.21E+04
A2	1.75E+04	2.34E+04	1.75E+04	2.34E+04
FD	-6.16E+04	6.62E+04	-6.21E+04	6.48E+04
L1	-5.03E+04	4.47E+04	-5.01E+04	4.44E+04
L3	-5.91E+04	5.36E+04	-5.86E+04	5.31E+04
L4	-1.02E+05	8.83E+04	-5.15E+04	7.17E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-113. Time history of  $F_y^{ptot}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-225. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

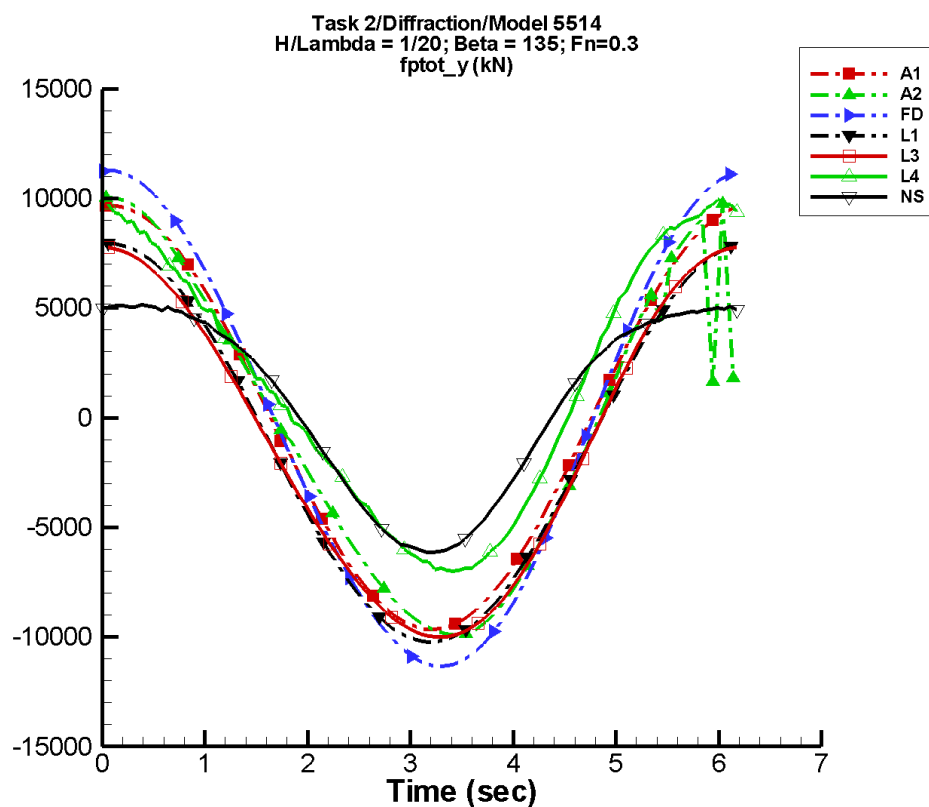
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.87	3.23E+03	78	4.01	99
A2	-5.22	3.38E+03	74	19.7	-177
FD	-1.65	3.70E+03	62	46.9	122
L1	-129.	3.03E+03	76	3.72	120
L3	-129.	3.02E+03	76	55.2	139
L4	135.	2.83E+03	80	204.	-148
NF	—	—	—	—	—
NS	70.3	1.79E+03	86	143.	-116

Table H-226. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.23E+03	3.24E+03	-3.15E+03	3.23E+03
A2	-3.41E+03	3.37E+03	-3.32E+03	3.36E+03
FD	-3.70E+03	3.71E+03	-3.61E+03	3.72E+03
L1	-3.15E+03	2.90E+03	-3.13E+03	2.90E+03
L3	-3.14E+03	2.90E+03	-3.11E+03	2.90E+03
L4	-3.06E+03	3.15E+03	-3.01E+03	2.97E+03
NF	—	—	—	—
NS	-1.86E+03	1.73E+03	-1.83E+03	1.73E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-114. Time history of  $F_y^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

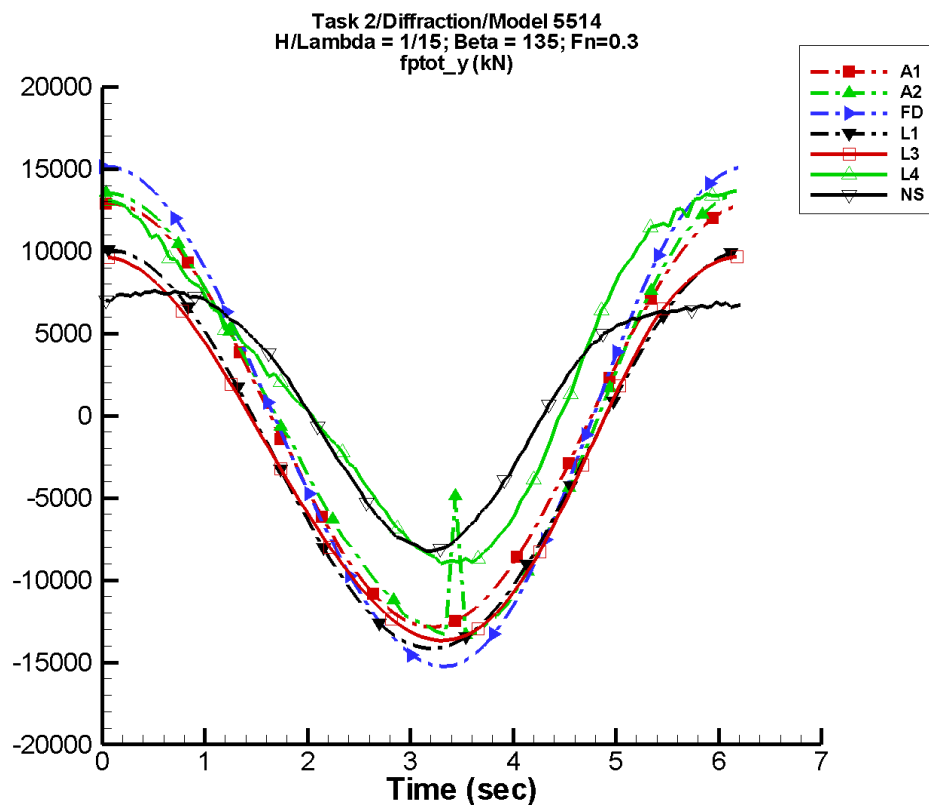
Table H–227. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-14.6	9.67E+03	78	12.0	99
A2	-240.	9.40E+03	73	395.	165
FD	-6.03	1.13E+04	62	392.	125
L1	-1.14E+03	9.08E+03	76	39.4	160
L3	-1.14E+03	8.91E+03	76	416.	146
L4	1.57E+03	8.12E+03	79	1.14E+03	162
NF	—	—	—	—	—
NS	745.	5.57E+03	87	1.30E+03	-97

Table H–228. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-9.65E+03	9.69E+03	-9.41E+03	9.66E+03
A2	-9.91E+03	1.00E+04	-9.63E+03	1.00E+04
FD	-1.13E+04	1.13E+04	-1.10E+04	1.13E+04
L1	-1.02E+04	7.94E+03	-1.01E+04	7.93E+03
L3	-1.00E+04	7.77E+03	-9.92E+03	7.71E+03
L4	-7.00E+03	9.97E+03	-6.88E+03	9.63E+03
NF	—	—	—	—
NS	-6.15E+03	5.16E+03	-6.03E+03	5.08E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-115. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

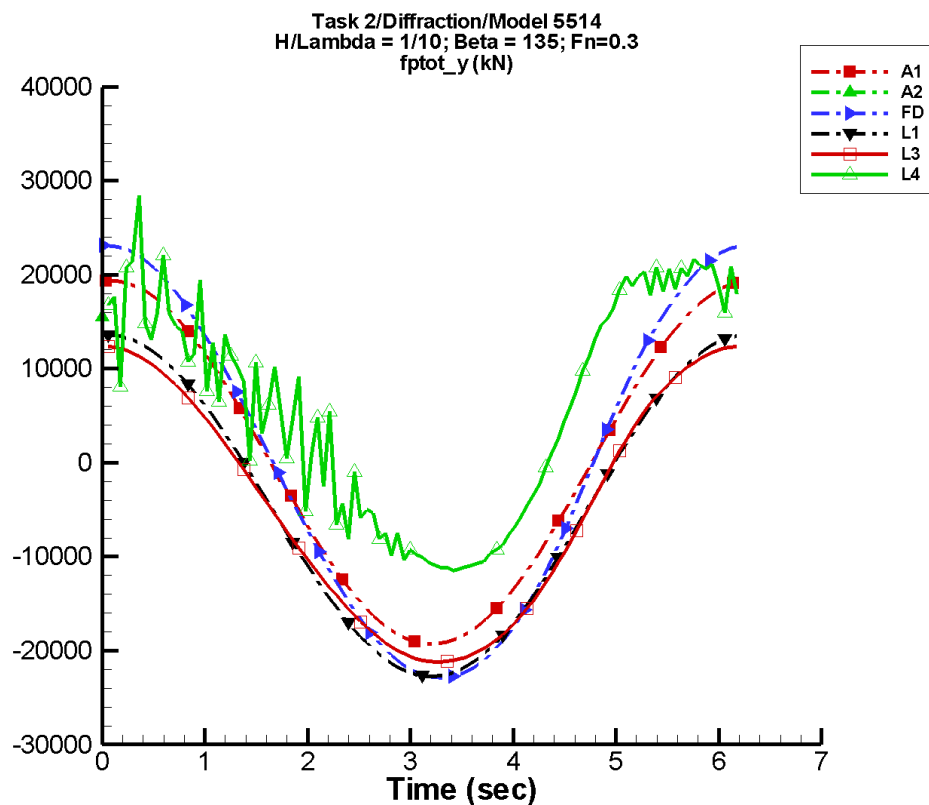
Table H-229. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-19.4	1.29E+04	78	16.0	99
A2	119.	1.31E+04	75	896.	125
FD	-9.50	1.52E+04	61	646.	124
L1	-2.02E+03	1.21E+04	76	73.4	163
L3	-2.02E+03	1.17E+04	76	645.	147
L4	2.89E+03	1.08E+04	78	1.91E+03	170
NF	—	—	—	—	—
NS	1.64E+03	7.50E+03	85	2.16E+03	-92

Table H-230. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.29E+04	1.29E+04	-1.25E+04	1.29E+04
A2	-1.33E+04	1.36E+04	-1.19E+04	1.35E+04
FD	-1.53E+04	1.51E+04	-1.49E+04	1.52E+04
L1	-1.41E+04	1.01E+04	-1.40E+04	1.01E+04
L3	-1.37E+04	9.66E+03	-1.36E+04	9.58E+03
L4	-9.00E+03	1.36E+04	-8.80E+03	1.34E+04
NF	—	—	—	—
NS	-8.23E+03	7.60E+03	-8.06E+03	7.48E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-116. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

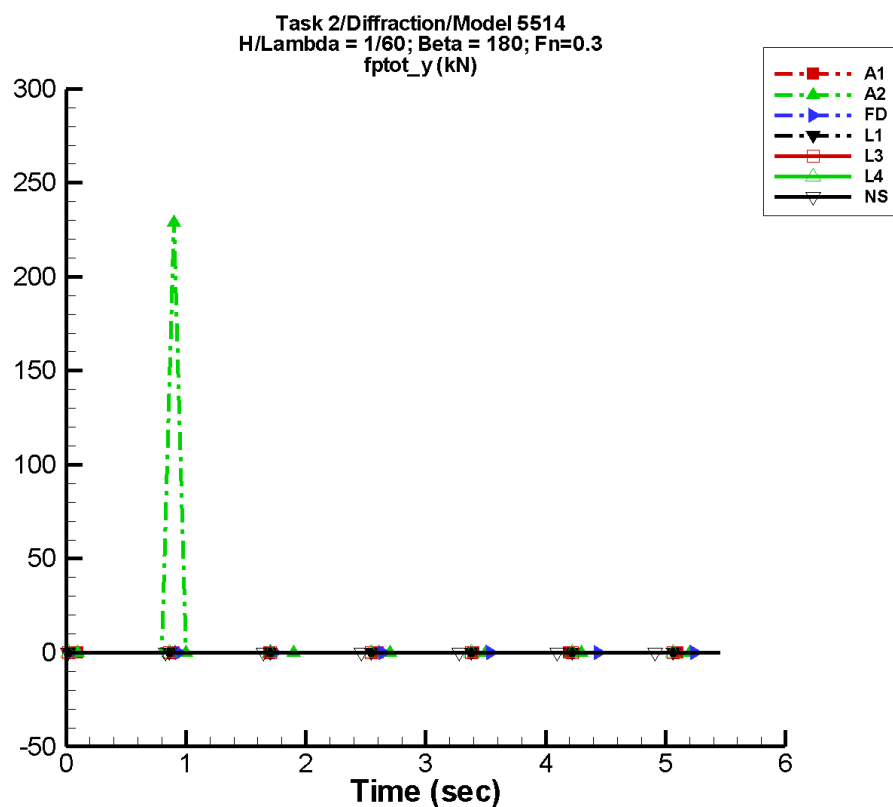
Table H-231. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-29.1	1.93E+04	78	24.0	99
A2	1.05E+04	6.63E+03	-76	1.39E+04	133
FD	-26.2	2.31E+04	62	940.	117
L1	-4.53E+03	1.82E+04	76	173.	167
L3	-4.53E+03	1.70E+04	76	917.	144
L4	5.97E+03	1.55E+04	82	3.42E+03	-165
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-232. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.93E+04	1.94E+04	-1.88E+04	1.93E+04
A2	1.39E+04	1.55E+04	1.39E+04	1.55E+04
FD	-2.29E+04	2.31E+04	-2.24E+04	2.31E+04
L1	-2.27E+04	1.36E+04	-2.26E+04	1.36E+04
L3	-2.12E+04	1.24E+04	-2.11E+04	1.23E+04
L4	-1.15E+04	2.84E+04	-1.11E+04	2.03E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-117. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-233. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

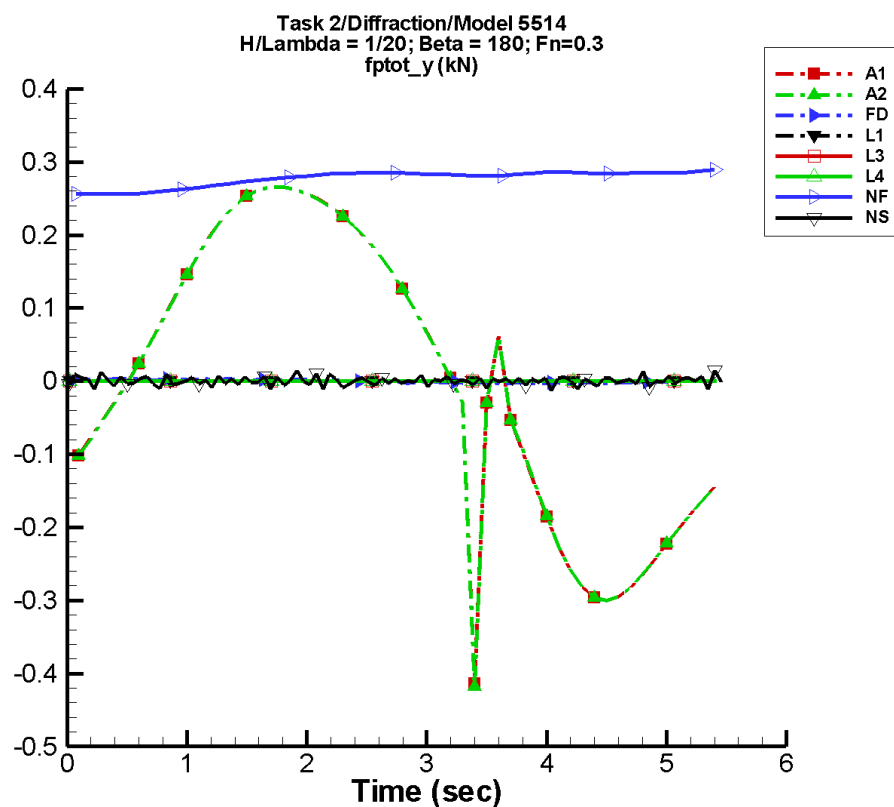
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.03E-04	8.82E-02	-25	1.52E-03	-71
A2	2.79	5.97	27	6.73	-30
FD	-1.20E-05	8.74E-04	115	4.29E-05	-88
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-7.37E-06	4.36E-04	-49	2.94E-04	121

Table H-234. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.138	8.88E-02	-9.27E-02	8.55E-02
A2	-0.138	229.	-2.53	30.5
FD	-1.25E-03	1.14E-03	-8.60E-04	8.73E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.42E-03	4.61E-03	-8.69E-04	6.40E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-118. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

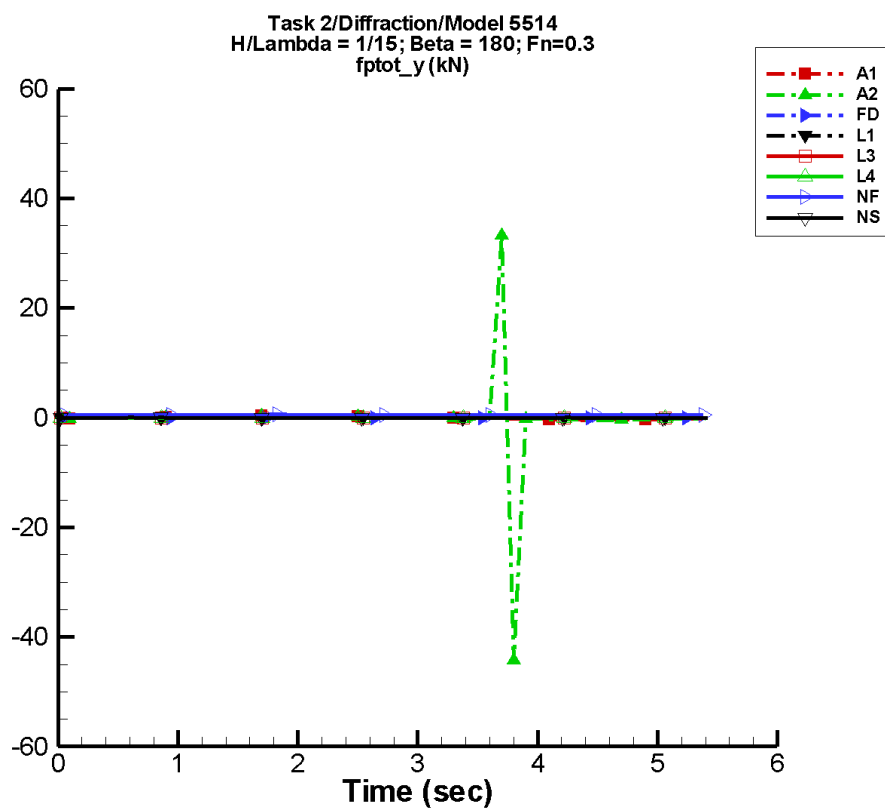
Table H-235. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.07E-04	0.264	-25	4.54E-03	-71
A2	-5.97E-04	0.264	-26	4.71E-03	-74
FD	-1.46E-05	2.75E-03	115	2.03E-04	163
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	0.287	1.00E-02	-3	7.15E-03	-41
NS	7.11E-05	3.14E-04	71	9.03E-04	146

Table H-236. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.414	0.266	-0.277	0.256
A2	-0.418	0.266	-0.277	0.256
FD	-3.77E-03	3.74E-03	-2.59E-03	2.94E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	0.256	0.321	0.255	0.321
NS	-1.34E-02	1.50E-02	-1.31E-03	3.07E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-119. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

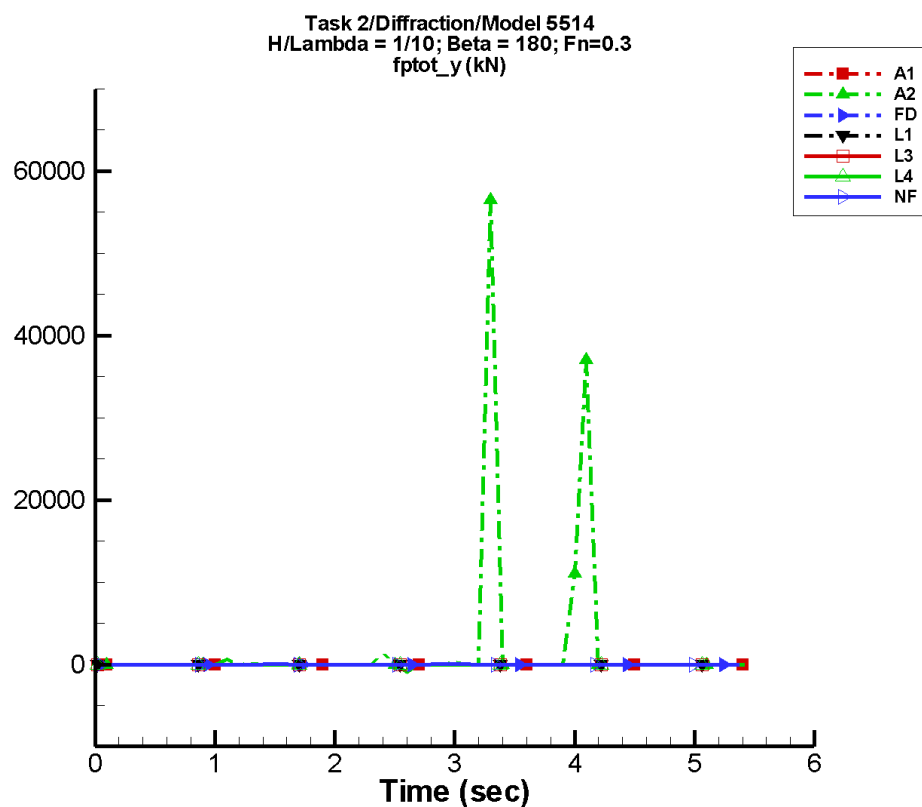
Table H-237. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.08E-04	0.351	-25	6.05E-03	-71
A2	-0.215	0.748	-10	0.475	111
FD	-8.07E-05	3.35E-03	120	9.01E-04	168
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	0.534	1.71E-02	20	2.63E-02	-12
NS	1.39E-04	5.58E-04	62	9.85E-04	-179

Table H-238. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.551	0.354	-0.369	0.341
A2	-44.3	33.3	-2.19	0.548
FD	-5.74E-03	5.14E-03	-3.39E-03	3.93E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	0.471	0.663	0.471	0.607
NS	-2.91E-02	3.45E-02	-2.02E-03	4.47E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NSHIPMO.

Figure H-120. Time history of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

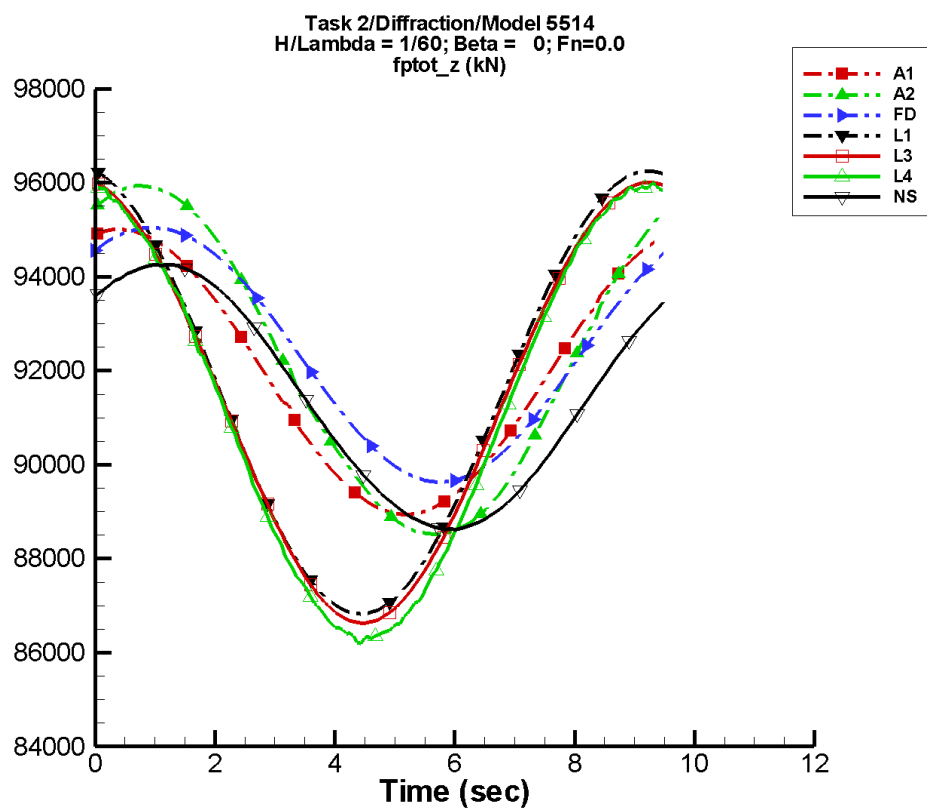
Table H-239. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.21E-03	0.528	-25	9.09E-03	-71
A2	1.92E+03	3.48E+03	-144	2.32E+03	-17
FD	-2.53E-04	4.41E-03	135	2.99E-03	178
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	1.34	0.404	-160	0.301	116
NS	—	—	—	—	—

Table H-240. Minimum and maximum of  $F_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.828	0.532	-0.554	0.512
A2	-1.01E+03	5.65E+04	-521.	7.55E+03
FD	-1.18E-02	8.20E-03	-5.95E-03	6.18E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-1.13	2.98	2.89E-02	2.19
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-121. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-241. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

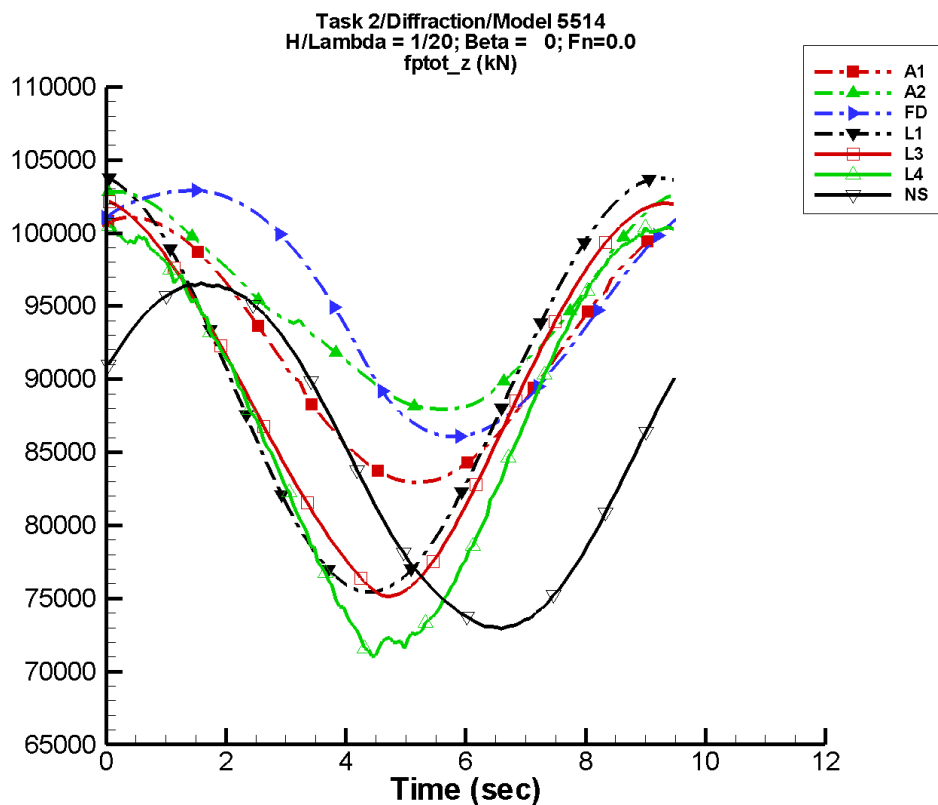
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.02E+03	69	2.92	-19
A2	9.22E+04	3.72E+03	54	74.6	82
FD	9.24E+04	2.72E+03	47	37.6	167
L1	9.16E+04	4.72E+03	98	44.0	-22
L3	9.14E+04	4.68E+03	98	70.0	-72
L4	9.12E+04	4.83E+03	96	84.0	-82
NF	—	—	—	—	—
NS	9.14E+04	2.80E+03	48	12.2	129

Table H-242. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.89E+04	9.50E+04	8.90E+04	9.50E+04
A2	8.85E+04	9.59E+04	8.86E+04	9.59E+04
FD	8.96E+04	9.50E+04	8.97E+04	9.50E+04
L1	8.68E+04	9.63E+04	8.68E+04	9.62E+04
L3	8.66E+04	9.60E+04	8.67E+04	9.60E+04
L4	8.62E+04	9.60E+04	8.63E+04	9.59E+04
NF	—	—	—	—
NS	8.86E+04	9.43E+04	8.87E+04	9.42E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-122. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

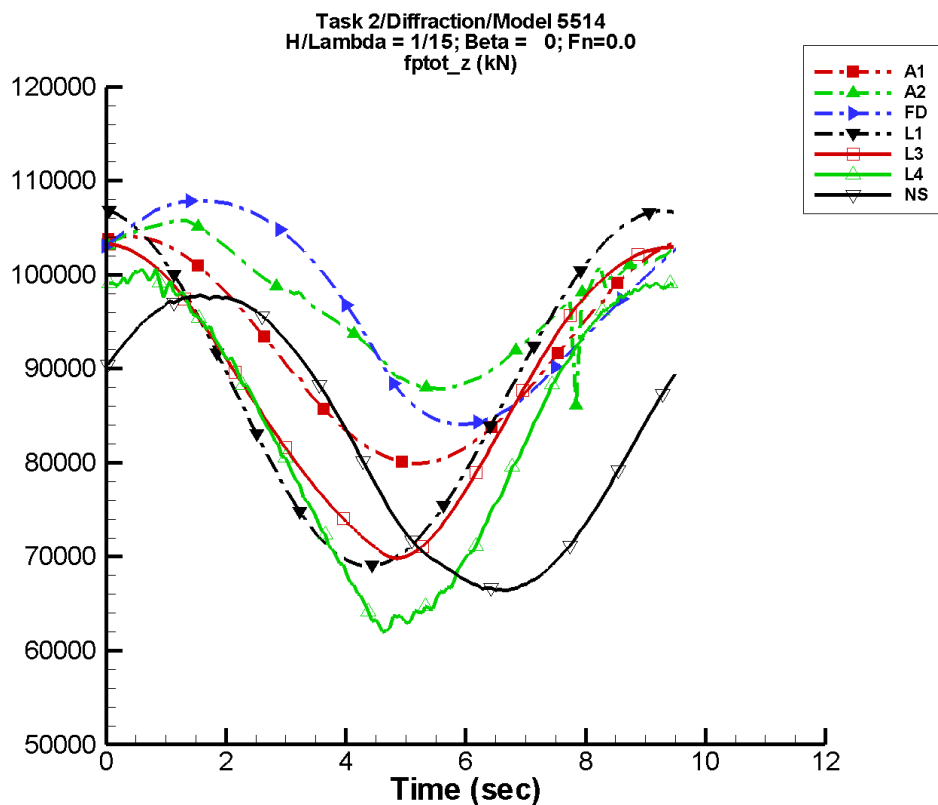
Table H-243. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	9.05E+03	69	8.76	-19
A2	9.49E+04	7.05E+03	66	1.06E+03	107
FD	9.52E+04	8.60E+03	38	848.	-168
L1	8.99E+04	1.42E+04	98	363.	-26
L3	8.93E+04	1.30E+04	92	683.	-128
L4	8.73E+04	1.42E+04	88	1.31E+03	-108
NF	—	—	—	—	—
NS	8.48E+04	1.19E+04	26	216.	80

Table H-244. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.29E+04	1.01E+05	8.30E+04	1.01E+05
A2	8.79E+04	1.03E+05	8.80E+04	1.03E+05
FD	8.61E+04	1.03E+05	8.62E+04	1.03E+05
L1	7.54E+04	1.04E+05	7.55E+04	1.04E+05
L3	7.52E+04	1.02E+05	7.53E+04	1.02E+05
L4	7.10E+04	1.01E+05	7.17E+04	1.00E+05
NF	—	—	—	—
NS	7.29E+04	9.66E+04	7.31E+04	9.64E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-123. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

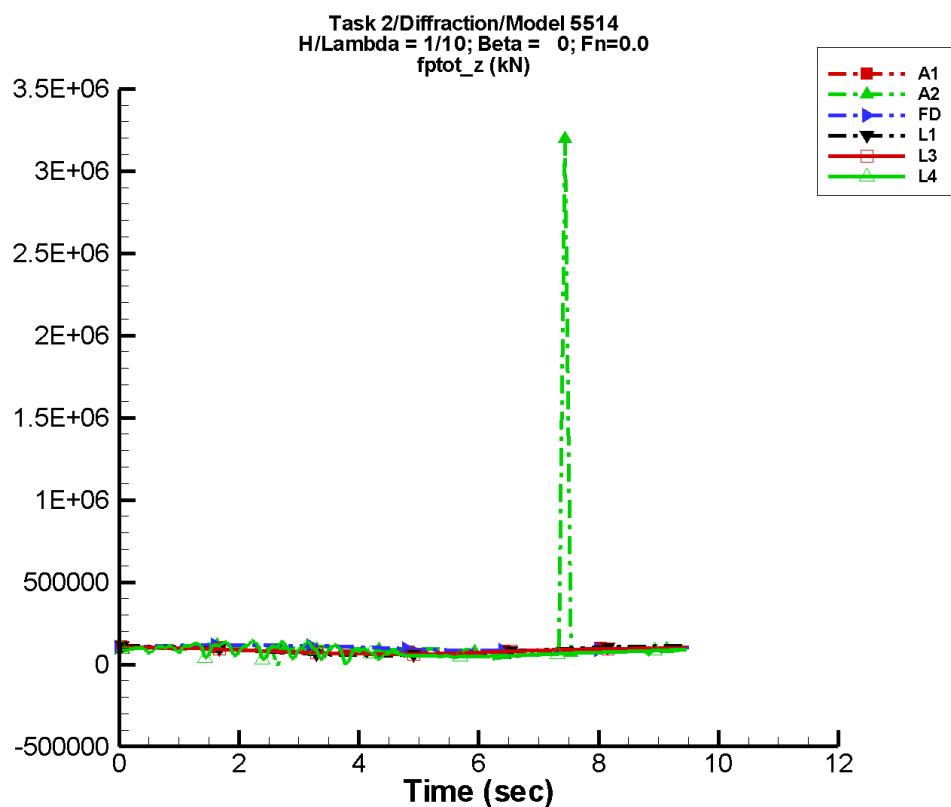
Table H-245. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.20E+04	69	11.7	-18
A2	9.71E+04	8.21E+03	52	434.	-134
FD	9.69E+04	1.19E+04	29	1.32E+03	-166
L1	8.84E+04	1.89E+04	98	639.	-27
L3	8.77E+04	1.62E+04	90	974.	-124
L4	8.38E+04	1.83E+04	81	2.36E+03	-109
NF	—	—	—	—	—
NS	8.23E+04	1.60E+04	26	296.	114

Table H-246. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.99E+04	1.04E+05	8.01E+04	1.04E+05
A2	8.61E+04	1.06E+05	8.80E+04	1.05E+05
FD	8.41E+04	1.08E+05	8.42E+04	1.08E+05
L1	6.90E+04	1.07E+05	6.91E+04	1.07E+05
L3	6.98E+04	1.03E+05	7.00E+04	1.03E+05
L4	6.20E+04	1.01E+05	6.28E+04	1.00E+05
NF	—	—	—	—
NS	6.64E+04	9.78E+04	6.65E+04	9.76E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-124. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

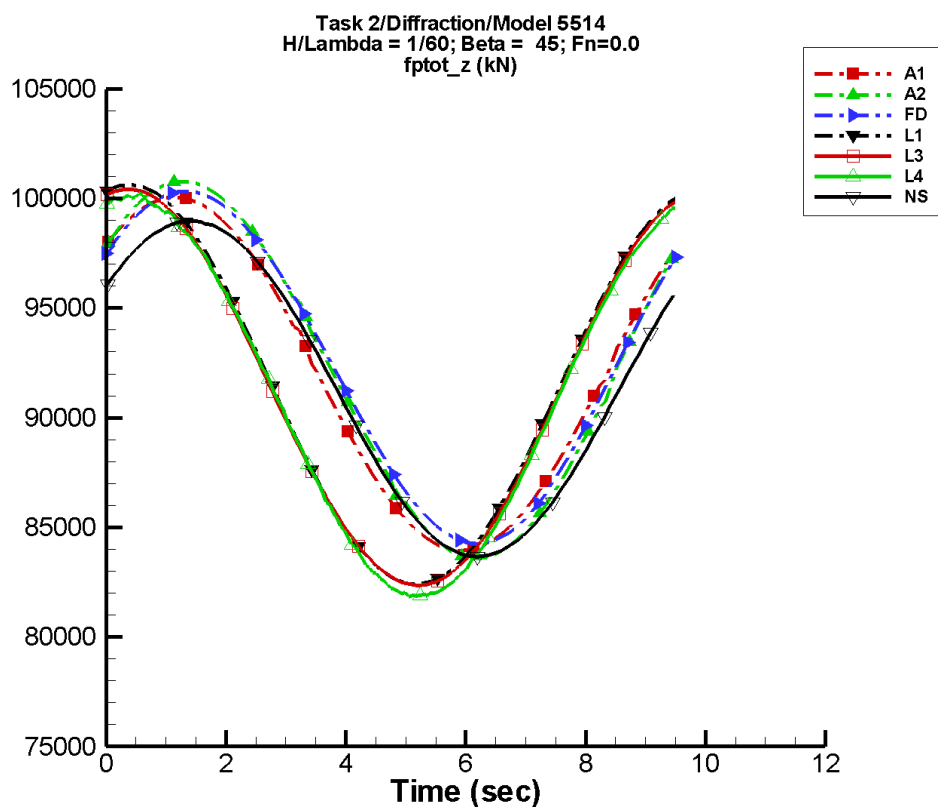
Table H-247. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.81E+04	69	17.5	-18
A2	1.22E+05	4.90E+04	149	5.45E+04	-123
FD	1.00E+05	1.70E+04	8	477.	-69
L1	8.41E+04	2.84E+04	98	1.42E+03	-27
L3	8.30E+04	1.94E+04	91	1.74E+03	-45
L4	7.65E+04	2.55E+04	40	3.70E+03	-118
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-248. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.39E+04	1.10E+05	7.41E+04	1.10E+05
A2	-1.23E+04	3.20E+06	1.20E+04	4.86E+05
FD	8.51E+04	1.17E+05	8.52E+04	1.17E+05
L1	5.47E+04	1.12E+05	5.49E+04	1.12E+05
L3	6.19E+04	1.02E+05	6.20E+04	1.02E+05
L4	-1.02E+03	1.44E+05	4.68E+04	1.12E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-125. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-249. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

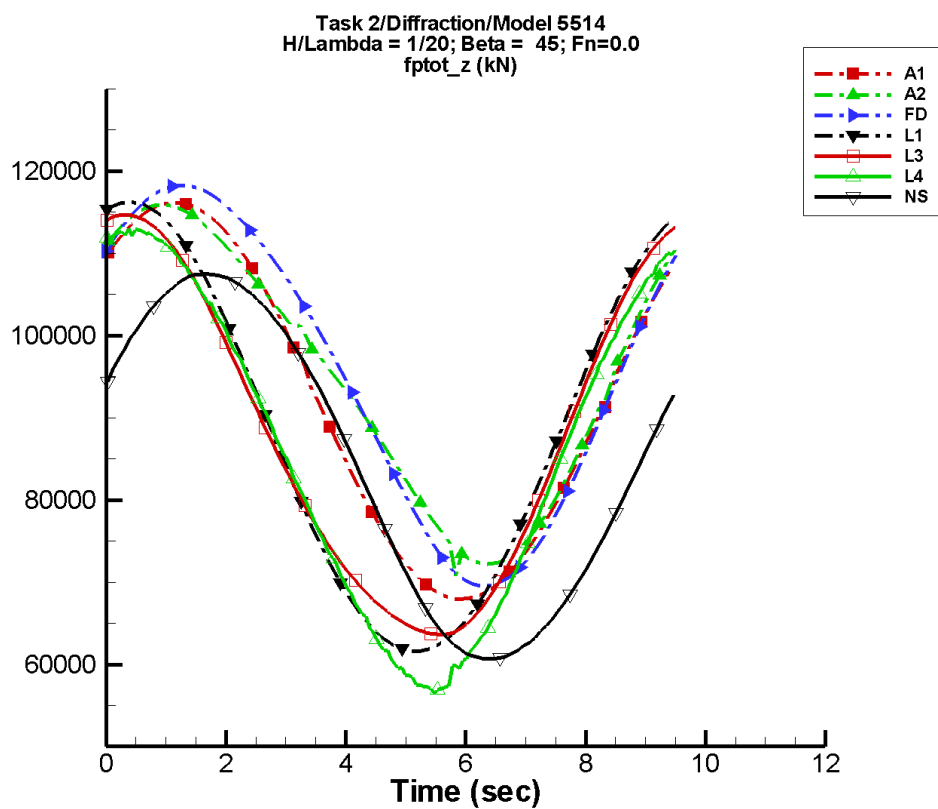
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	8.07E+03	41	11.8	-20
A2	9.22E+04	8.58E+03	34	203.	73
FD	9.24E+04	8.03E+03	32	158.	98
L1	9.14E+04	9.04E+03	71	51.9	28
L3	9.12E+04	8.95E+03	71	131.	86
L4	9.10E+04	9.04E+03	70	124.	-150
NF	—	—	—	—	—
NS	9.14E+04	7.65E+03	36	66.2	157

Table H-250. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.39E+04	1.00E+05	8.40E+04	1.00E+05
A2	8.36E+04	1.01E+05	8.37E+04	1.01E+05
FD	8.43E+04	1.00E+05	8.43E+04	1.00E+05
L1	8.24E+04	1.01E+05	8.24E+04	1.01E+05
L3	8.24E+04	1.00E+05	8.24E+04	1.00E+05
L4	8.18E+04	1.00E+05	8.19E+04	1.00E+05
NF	—	—	—	—
NS	8.37E+04	9.90E+04	8.37E+04	9.89E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-126. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

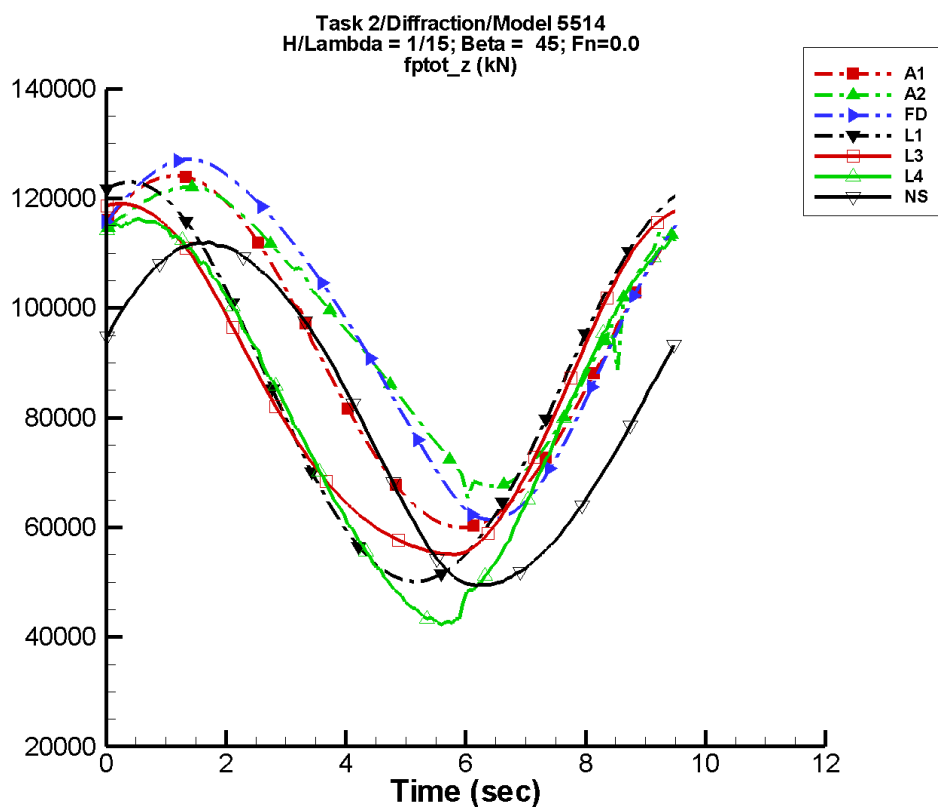
Table H–251. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.41E+04	41	35.2	-20
A2	9.49E+04	2.09E+04	35	3.06E+03	89
FD	9.52E+04	2.39E+04	29	1.89E+03	101
L1	8.83E+04	2.71E+04	71	415.	38
L3	8.78E+04	2.52E+04	70	1.91E+03	95
L4	8.58E+04	2.69E+04	66	1.14E+03	175
NF	—	—	—	—	—
NS	8.43E+04	2.35E+04	24	368.	168

Table H–252. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	6.79E+04	1.16E+05	6.82E+04	1.16E+05
A2	7.08E+04	1.16E+05	7.24E+04	1.16E+05
FD	6.95E+04	1.18E+05	6.99E+04	1.18E+05
L1	6.16E+04	1.16E+05	6.17E+04	1.16E+05
L3	6.36E+04	1.15E+05	6.37E+04	1.15E+05
L4	5.64E+04	1.13E+05	5.71E+04	1.13E+05
NF	—	—	—	—
NS	6.07E+04	1.08E+05	6.09E+04	1.07E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-127. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

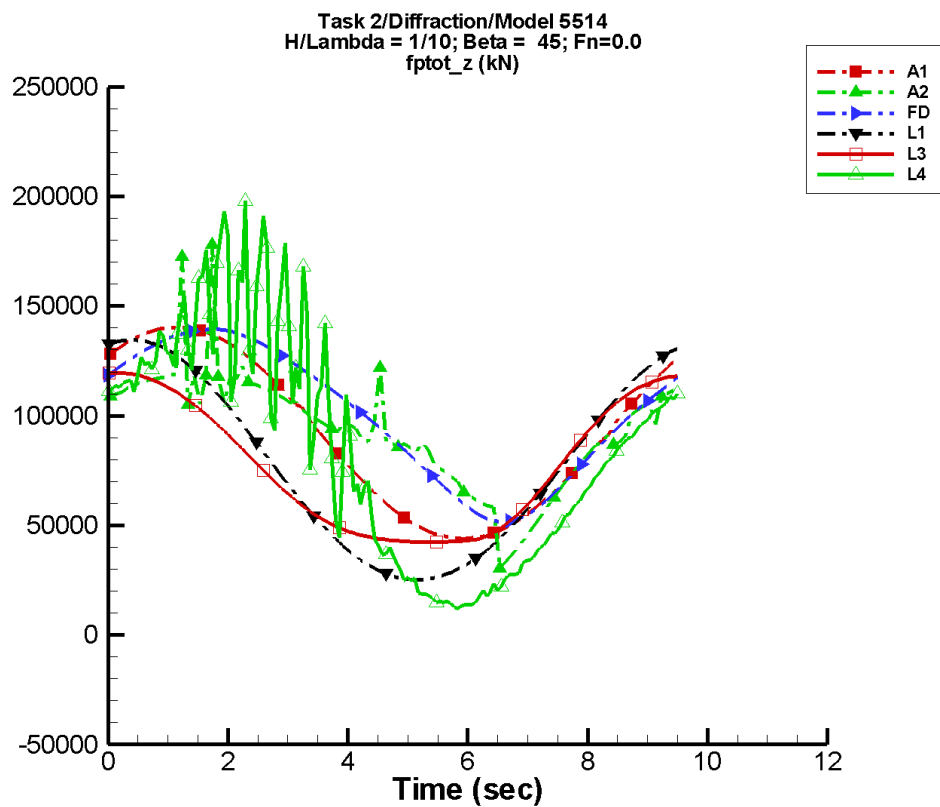
Table H-253. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.21E+04	41	46.9	-20
A2	9.69E+04	2.61E+04	30	3.25E+03	105
FD	9.68E+04	3.18E+04	26	3.22E+03	102
L1	8.56E+04	3.61E+04	71	728.	39
L3	8.49E+04	3.19E+04	70	3.16E+03	96
L4	8.12E+04	3.55E+04	63	1.93E+03	176
NF	—	—	—	—	—
NS	8.13E+04	3.12E+04	25	838.	168

Table H-254. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	6.00E+04	1.24E+05	6.03E+04	1.24E+05
A2	6.54E+04	1.22E+05	6.78E+04	1.22E+05
FD	6.14E+04	1.27E+05	6.19E+04	1.27E+05
L1	5.01E+04	1.23E+05	5.03E+04	1.23E+05
L3	5.51E+04	1.19E+05	5.52E+04	1.19E+05
L4	4.22E+04	1.16E+05	4.28E+04	1.16E+05
NF	—	—	—	—
NS	4.93E+04	1.12E+05	4.96E+04	1.12E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-128. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

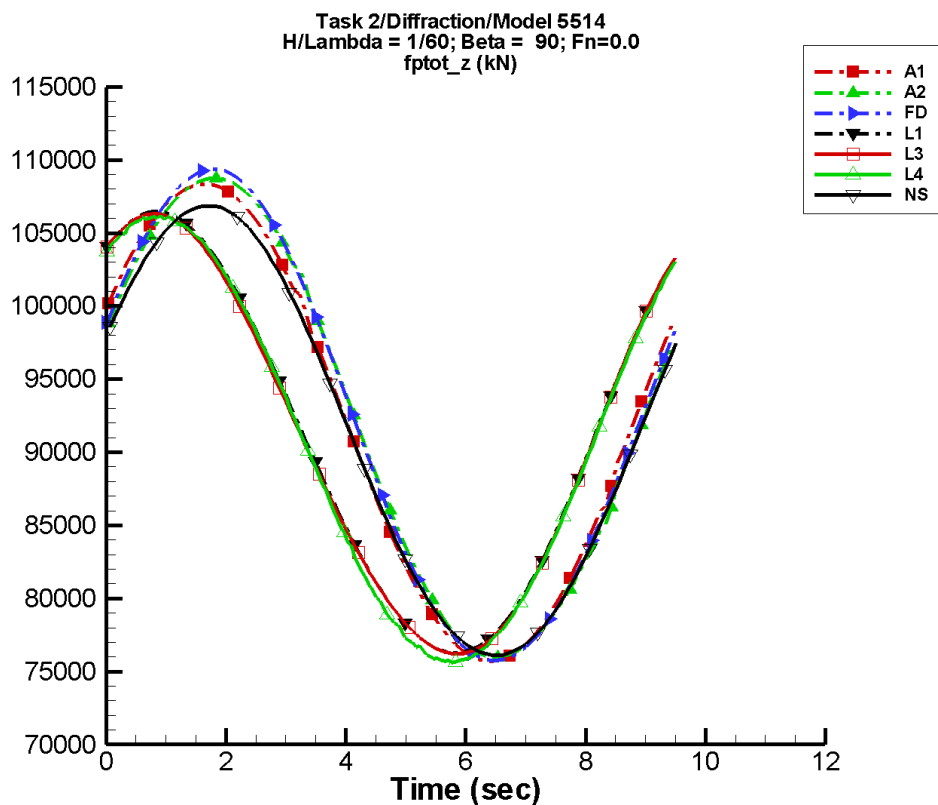
Table H-255. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	4.83E+04	41	70.4	-20
A2	9.31E+04	3.10E+04	25	8.55E+03	91
FD	1.00E+05	4.11E+04	19	3.69E+03	109
L1	7.79E+04	5.42E+04	71	1.62E+03	41
L3	7.67E+04	3.99E+04	76	4.07E+03	93
L4	8.41E+04	6.64E+04	29	1.52E+04	-128
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-256. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	4.39E+04	1.40E+05	4.44E+04	1.40E+05
A2	3.02E+04	1.78E+05	4.31E+04	1.26E+05
FD	5.18E+04	1.39E+05	5.28E+04	1.39E+05
L1	2.52E+04	1.34E+05	2.54E+04	1.34E+05
L3	4.24E+04	1.20E+05	4.24E+04	1.20E+05
L4	1.22E+04	1.98E+05	1.37E+04	1.61E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-129. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-257. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

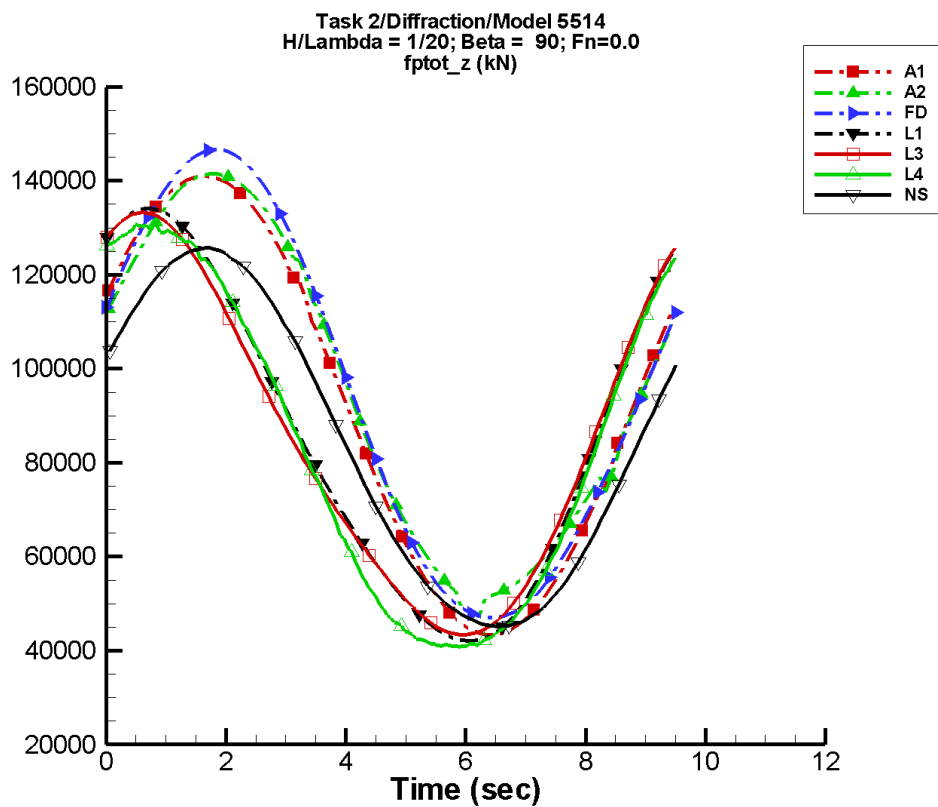
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.64E+04	23	26.1	-27
A2	9.22E+04	1.64E+04	17	208.	-97
FD	9.24E+04	1.68E+04	18	281.	-101
L1	9.11E+04	1.49E+04	50	577.	67
L3	9.10E+04	1.48E+04	51	753.	71
L4	9.08E+04	1.51E+04	51	344.	61
NF	—	—	—	—	—
NS	9.13E+04	1.54E+04	25	200.	-28

Table H-258. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.57E+04	1.08E+05	7.59E+04	1.08E+05
A2	7.60E+04	1.09E+05	7.62E+04	1.09E+05
FD	7.58E+04	1.09E+05	7.59E+04	1.09E+05
L1	7.63E+04	1.06E+05	7.63E+04	1.06E+05
L3	7.62E+04	1.06E+05	7.63E+04	1.06E+05
L4	7.56E+04	1.06E+05	7.57E+04	1.06E+05
NF	—	—	—	—
NS	7.61E+04	1.07E+05	7.63E+04	1.07E+05



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Data identically zero, insufficient, or not available from NFA.

Figure H-130. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

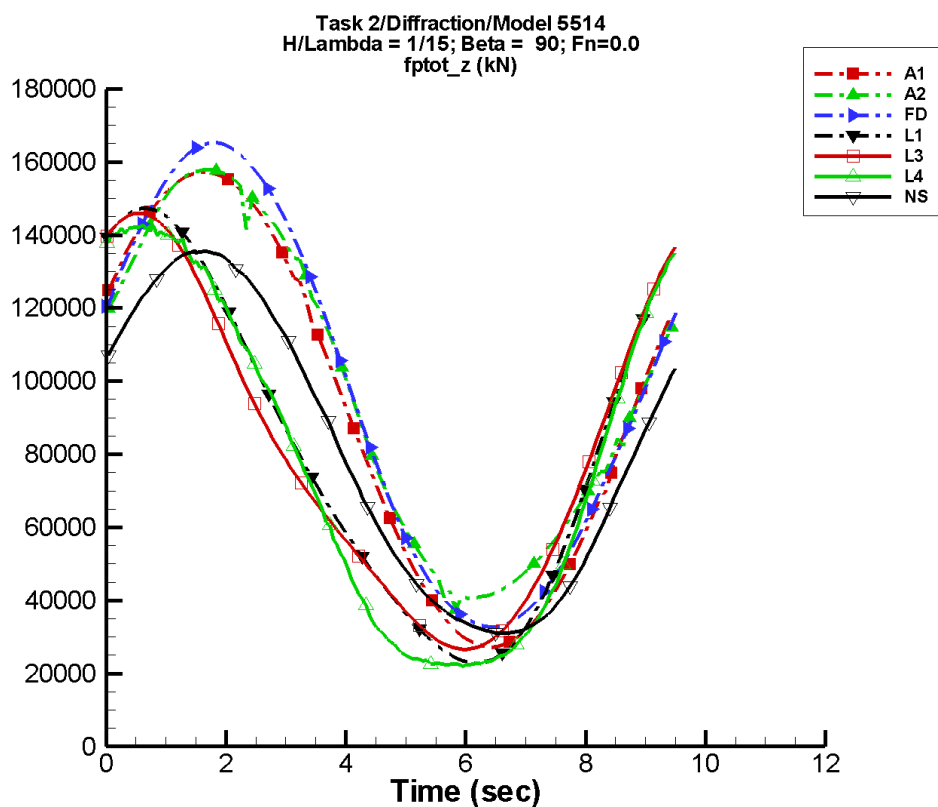
Table H-259. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	4.89E+04	23	78.0	-27
A2	9.47E+04	4.52E+04	20	2.95E+03	-106
FD	9.52E+04	4.99E+04	18	2.40E+03	-101
L1	8.59E+04	4.46E+04	50	5.02E+03	70
L3	8.54E+04	4.28E+04	54	5.62E+03	72
L4	8.34E+04	4.54E+04	51	2.86E+03	55
NF	—	—	—	—	—
NS	8.37E+04	4.03E+04	27	1.50E+03	-18

Table H-260. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	4.34E+04	1.41E+05	4.39E+04	1.40E+05
A2	4.77E+04	1.41E+05	5.01E+04	1.41E+05
FD	4.70E+04	1.47E+05	4.74E+04	1.46E+05
L1	4.21E+04	1.34E+05	4.22E+04	1.34E+05
L3	4.34E+04	1.33E+05	4.35E+04	1.33E+05
L4	4.08E+04	1.31E+05	4.10E+04	1.30E+05
NF	—	—	—	—
NS	4.52E+04	1.26E+05	4.55E+04	1.25E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-131. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

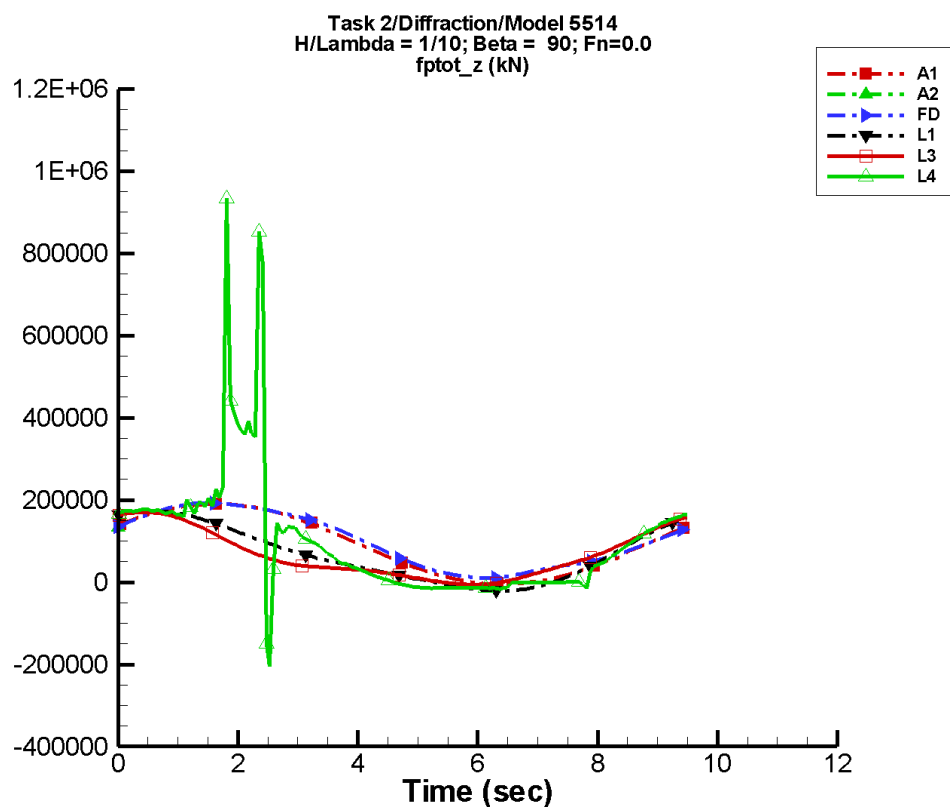
Table H-261. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	6.51E+04	23	104.	-27
A2	9.71E+04	5.83E+04	21	4.23E+03	-104
FD	9.69E+04	6.62E+04	18	3.17E+03	-101
L1	8.13E+04	5.95E+04	50	8.88E+03	70
L3	8.08E+04	5.57E+04	56	9.84E+03	73
L4	7.74E+04	6.13E+04	51	5.82E+03	59
NF	—	—	—	—	—
NS	8.03E+04	5.25E+04	28	2.76E+03	-10

Table H-262. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	2.72E+04	1.57E+05	2.79E+04	1.56E+05
A2	3.75E+04	1.58E+05	4.07E+04	1.57E+05
FD	3.27E+04	1.65E+05	3.34E+04	1.64E+05
L1	2.29E+04	1.47E+05	2.31E+04	1.47E+05
L3	2.66E+04	1.46E+05	2.69E+04	1.46E+05
L4	2.19E+04	1.43E+05	2.24E+04	1.42E+05
NF	—	—	—	—
NS	3.10E+04	1.36E+05	3.13E+04	1.35E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-132. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

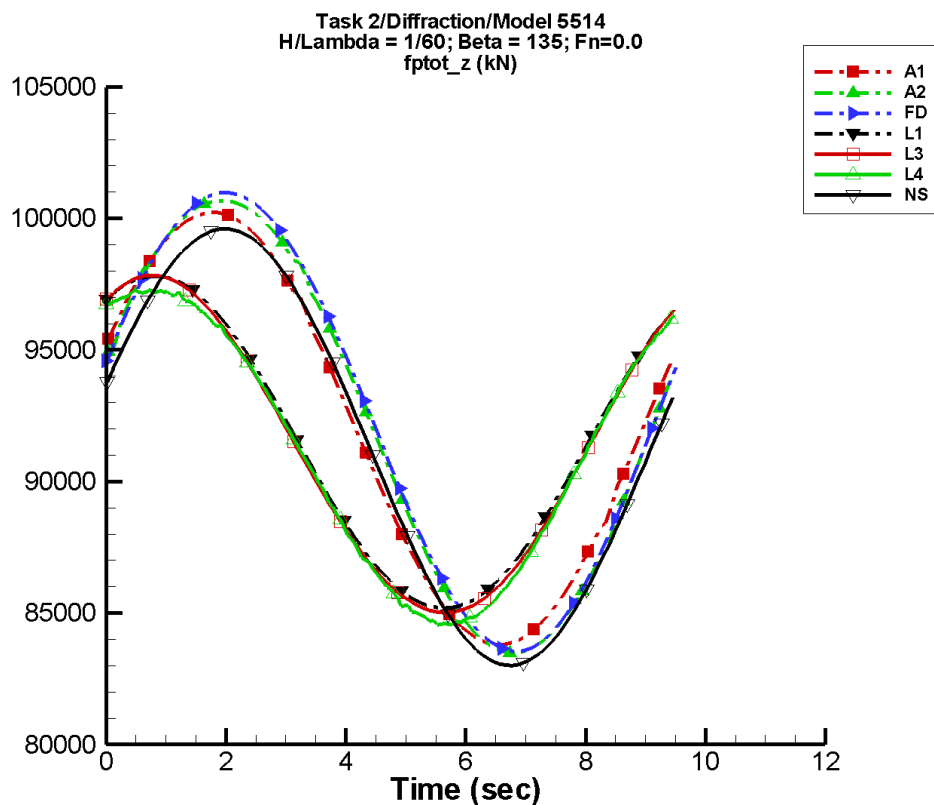
Table H-263. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	9.78E+04	23	156.	-27
A2	1.75E+05	5.75E+05	-99	3.29E+05	-8
FD	1.01E+05	8.94E+04	21	3.60E+03	-101
L1	6.82E+04	8.93E+04	50	1.99E+04	70
L3	6.77E+04	7.73E+04	67	2.18E+04	74
L4	9.31E+04	1.42E+05	32	4.89E+04	-56
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-264. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.26E+03	1.90E+05	-4.21E+03	1.89E+05
A2	1.34E+05	1.39E+05	1.34E+05	1.39E+05
FD	9.96E+03	1.93E+05	1.16E+04	1.91E+05
L1	-2.08E+04	1.73E+05	-2.04E+04	1.72E+05
L3	-5.84E+03	1.70E+05	-5.40E+03	1.69E+05
L4	-2.04E+05	9.78E+05	-1.52E+04	4.62E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-133. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-265. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

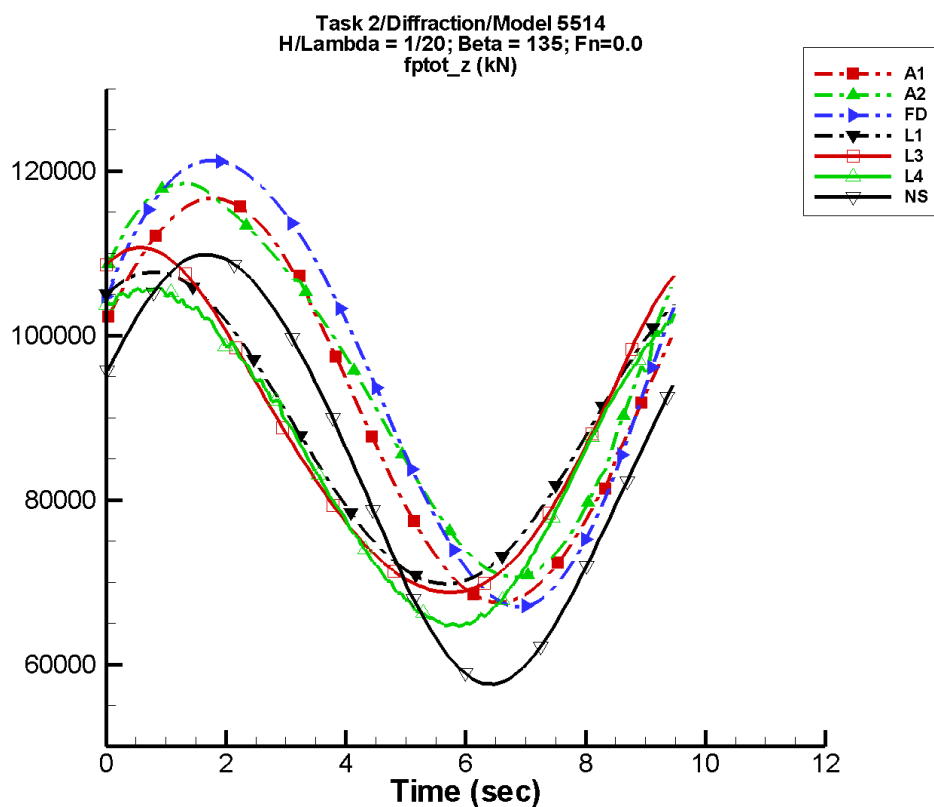
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	8.22E+03	17	14.2	-41
A2	9.22E+04	8.64E+03	10	208.	62
FD	9.24E+04	8.73E+03	8	159.	59
L1	9.14E+04	6.23E+03	54	64.7	49
L3	9.12E+04	6.31E+03	54	182.	54
L4	9.10E+04	6.29E+03	54	201.	154
NF	—	—	—	—	—
NS	9.14E+04	8.26E+03	15	91.1	139

Table H-266. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.38E+04	1.00E+05	8.39E+04	1.00E+05
A2	8.35E+04	1.01E+05	8.36E+04	1.01E+05
FD	8.35E+04	1.01E+05	8.36E+04	1.01E+05
L1	8.52E+04	9.78E+04	8.52E+04	9.78E+04
L3	8.50E+04	9.78E+04	8.50E+04	9.78E+04
L4	8.45E+04	9.73E+04	8.46E+04	9.72E+04
NF	—	—	—	—
NS	8.30E+04	9.96E+04	8.31E+04	9.95E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-134. Time history of  $F_z^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

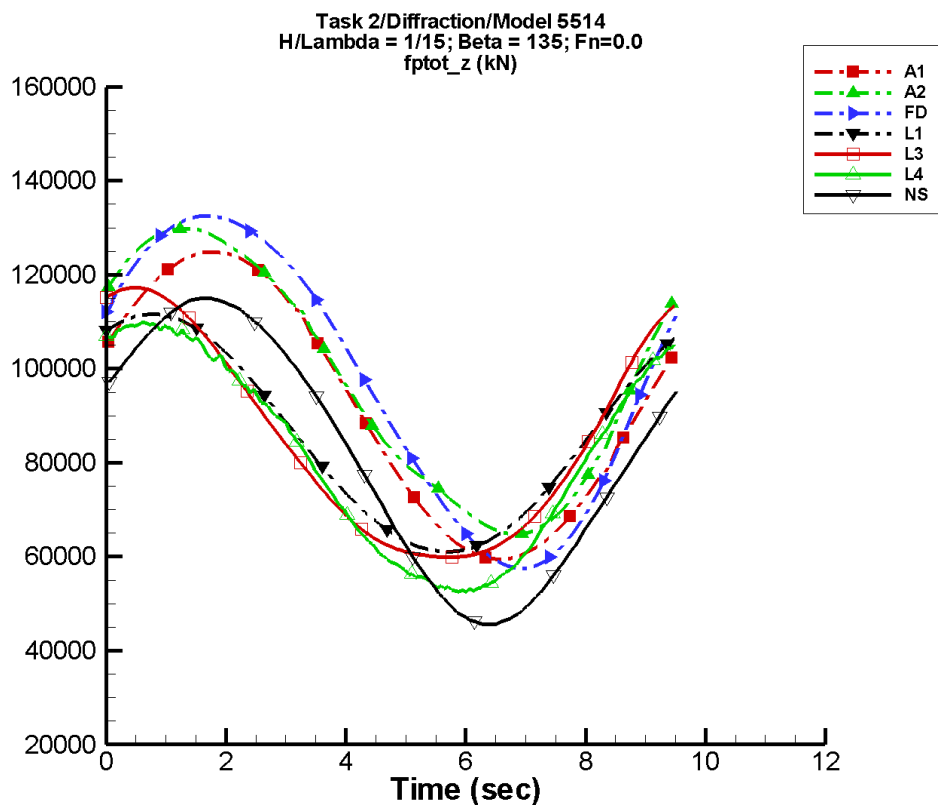
Table H-267. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.46E+04	17	42.4	-41
A2	9.49E+04	2.34E+04	20	3.16E+03	54
FD	9.52E+04	2.72E+04	10	1.92E+03	57
L1	8.82E+04	1.87E+04	54	483.	55
L3	8.77E+04	2.05E+04	57	2.25E+03	59
L4	8.56E+04	2.01E+04	53	1.29E+03	139
NF	—	—	—	—	—
NS	8.43E+04	2.57E+04	26	630.	173

Table H-268. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	6.75E+04	1.17E+05	6.78E+04	1.16E+05
A2	7.06E+04	1.18E+05	7.09E+04	1.18E+05
FD	6.70E+04	1.21E+05	6.73E+04	1.21E+05
L1	6.98E+04	1.08E+05	6.99E+04	1.08E+05
L3	6.87E+04	1.11E+05	6.88E+04	1.11E+05
L4	6.47E+04	1.06E+05	6.48E+04	1.06E+05
NF	—	—	—	—
NS	5.76E+04	1.10E+05	5.79E+04	1.10E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-135. Time history of  $F_z^{ptot}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

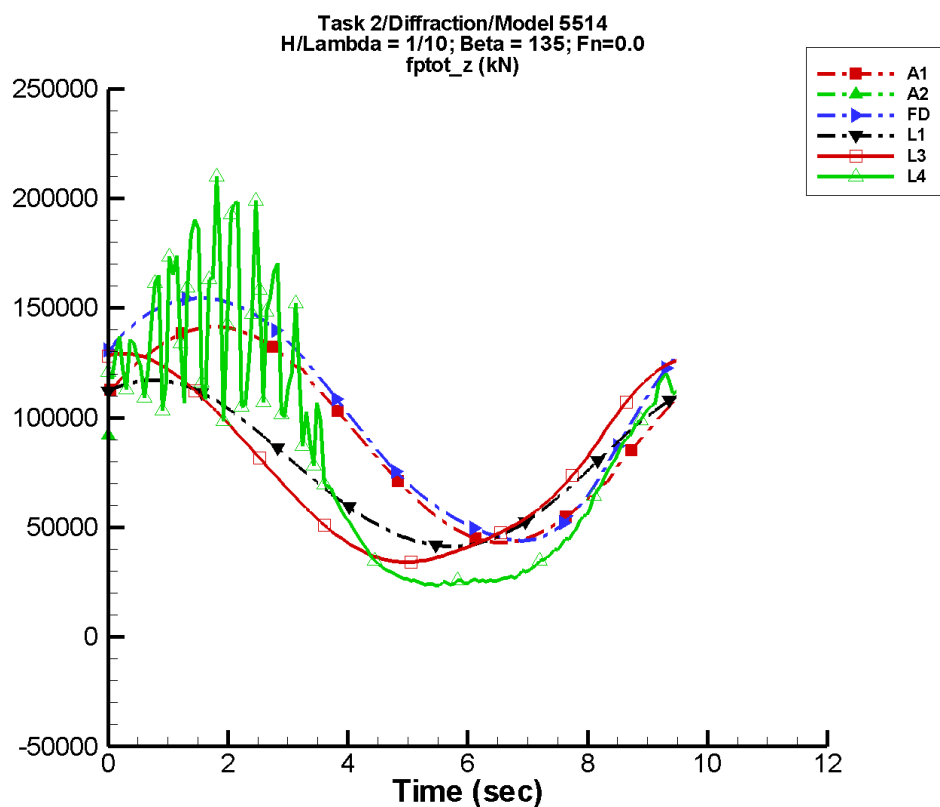
Table H-269. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.28E+04	17	56.5	-41
A2	9.71E+04	3.23E+04	23	3.49E+03	41
FD	9.68E+04	3.75E+04	12	3.31E+03	56
L1	8.54E+04	2.49E+04	54	837.	56
L3	8.47E+04	2.83E+04	60	3.69E+03	58
L4	8.11E+04	2.82E+04	52	1.75E+03	124
NF	—	—	—	—	—
NS	8.13E+04	3.37E+04	26	1.22E+03	177

Table H-270. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	5.94E+04	1.25E+05	5.98E+04	1.25E+05
A2	6.48E+04	1.30E+05	6.52E+04	1.29E+05
FD	5.75E+04	1.33E+05	5.80E+04	1.32E+05
L1	6.10E+04	1.12E+05	6.11E+04	1.11E+05
L3	5.99E+04	1.17E+05	5.99E+04	1.17E+05
L4	5.25E+04	1.10E+05	5.28E+04	1.09E+05
NF	—	—	—	—
NS	4.56E+04	1.15E+05	4.59E+04	1.15E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-136. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

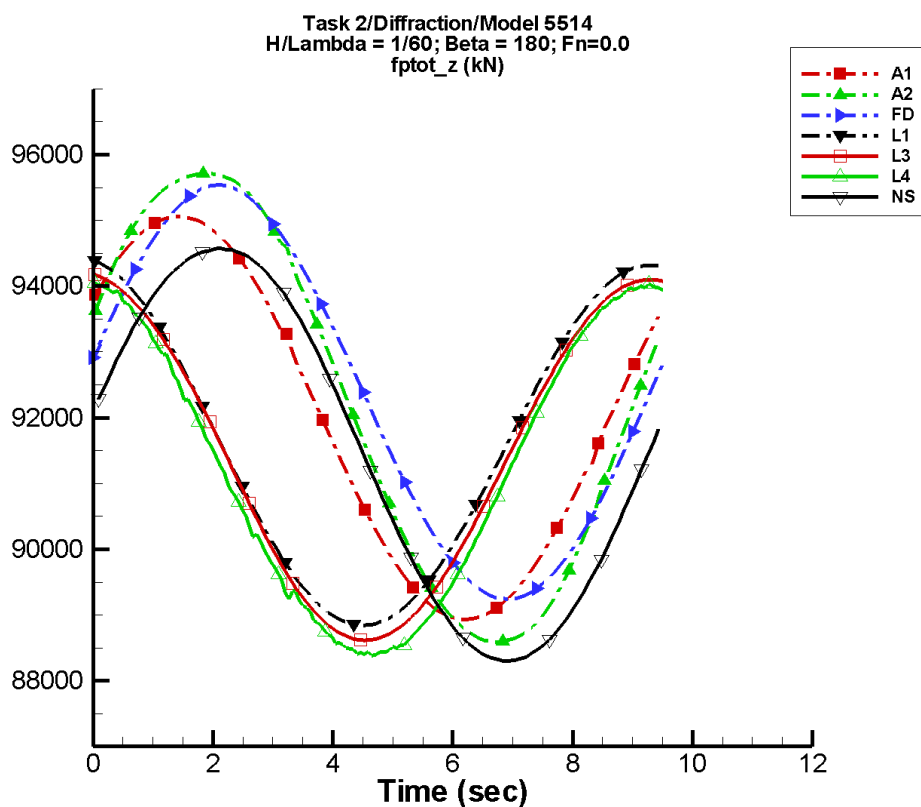
Table H-271. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	4.92E+04	17	84.9	-41
A2	3.85E+04	3.82E+05	30	1.93E+05	-139
FD	1.00E+05	5.62E+04	21	3.89E+03	51
L1	7.75E+04	3.74E+04	54	1.84E+03	57
L3	7.63E+04	4.63E+04	70	5.04E+03	55
L4	8.25E+04	6.89E+04	36	1.19E+04	-78
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-272. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	4.31E+04	1.41E+05	4.36E+04	1.41E+05
A2	8.52E+04	9.19E+04	8.52E+04	9.19E+04
FD	4.39E+04	1.55E+05	4.46E+04	1.54E+05
L1	4.13E+04	1.17E+05	4.14E+04	1.17E+05
L3	3.41E+04	1.29E+05	3.43E+04	1.29E+05
L4	2.35E+04	2.10E+05	2.42E+04	1.62E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-137. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-273. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

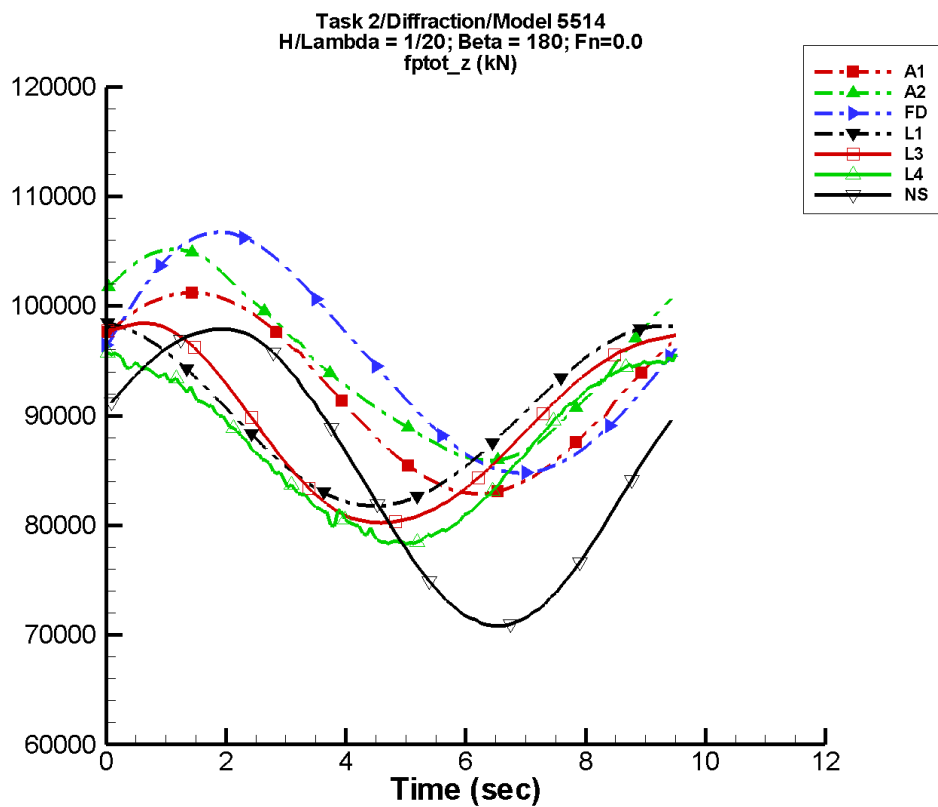
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.05E+03	30	6.46	-56
A2	9.22E+04	3.61E+03	14	87.1	66
FD	9.24E+04	3.13E+03	4	37.6	-12
L1	9.16E+04	2.75E+03	96	22.3	44
L3	9.14E+04	2.76E+03	94	45.8	-67
L4	9.12E+04	2.82E+03	94	51.8	144
NF	—	—	—	—	—
NS	9.15E+04	3.16E+03	10	29.2	77

Table H-274. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.89E+04	9.51E+04	8.90E+04	9.50E+04
A2	8.86E+04	9.57E+04	8.86E+04	9.57E+04
FD	8.92E+04	9.55E+04	8.93E+04	9.55E+04
L1	8.88E+04	9.44E+04	8.89E+04	9.44E+04
L3	8.86E+04	9.42E+04	8.86E+04	9.42E+04
L4	8.84E+04	9.40E+04	8.84E+04	9.40E+04
NF	—	—	—	—
NS	8.83E+04	9.46E+04	8.83E+04	9.45E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-138. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

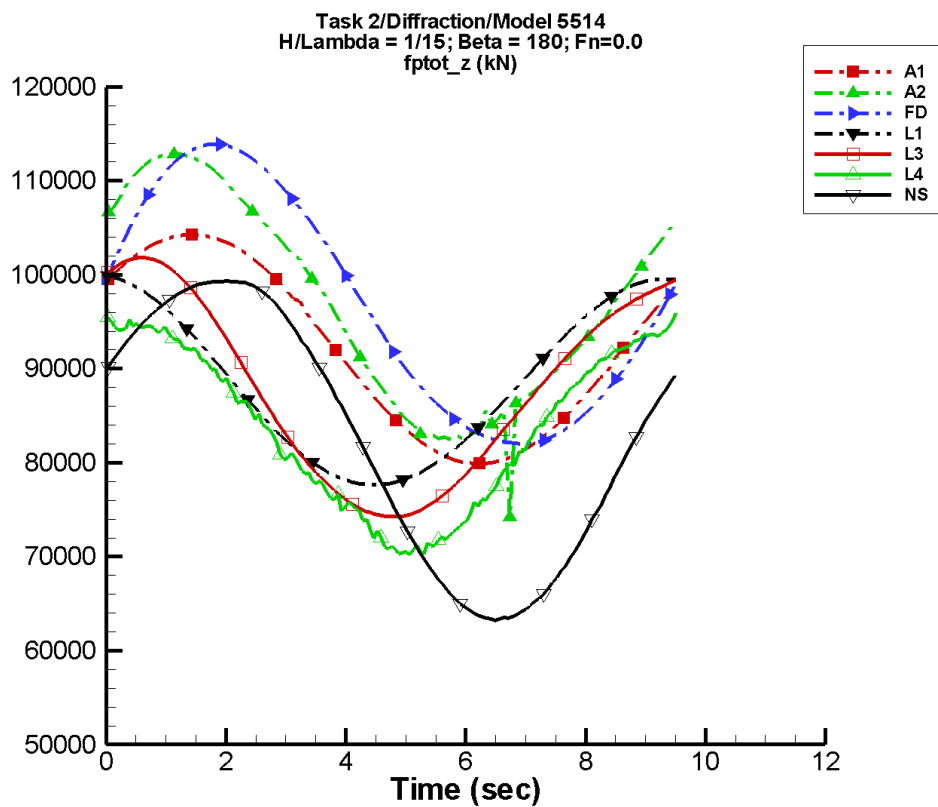
Table H-275. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	9.13E+03	30	19.3	-56
A2	9.49E+04	9.08E+03	36	941.	31
FD	9.51E+04	1.08E+04	6	869.	-38
L1	8.99E+04	8.25E+03	96	154.	49
L3	8.94E+04	9.06E+03	84	903.	-34
L4	8.71E+04	8.38E+03	87	457.	-148
NF	—	—	—	—	—
NS	8.48E+04	1.35E+04	23	592.	159

Table H-276. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.29E+04	1.01E+05	8.30E+04	1.01E+05
A2	8.59E+04	1.05E+05	8.60E+04	1.05E+05
FD	8.48E+04	1.07E+05	8.49E+04	1.07E+05
L1	8.18E+04	9.84E+04	8.18E+04	9.84E+04
L3	8.02E+04	9.85E+04	8.03E+04	9.84E+04
L4	7.83E+04	9.58E+04	7.84E+04	9.57E+04
NF	—	—	—	—
NS	7.08E+04	9.79E+04	7.10E+04	9.78E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-139. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

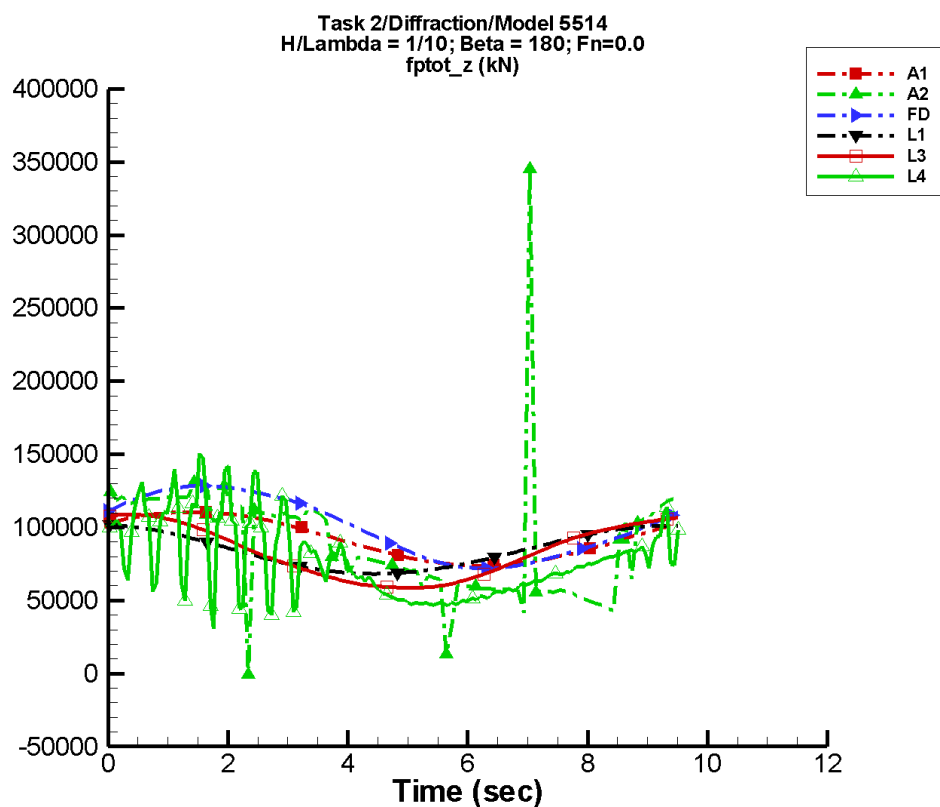
Table H-277. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.22E+04	30	25.7	-56
A2	9.71E+04	1.47E+04	38	520.	-54
FD	9.69E+04	1.61E+04	9	1.33E+03	-37
L1	8.85E+04	1.10E+04	96	263.	49
L3	8.78E+04	1.33E+04	81	1.39E+03	-27
L4	8.37E+04	1.17E+04	79	837.	-135
NF	—	—	—	—	—
NS	8.23E+04	1.80E+04	23	1.16E+03	159

Table H-278. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.99E+04	1.04E+05	8.00E+04	1.04E+05
A2	7.42E+04	1.13E+05	8.28E+04	1.13E+05
FD	8.20E+04	1.14E+05	8.21E+04	1.14E+05
L1	7.76E+04	9.99E+04	7.77E+04	9.98E+04
L3	7.43E+04	1.02E+05	7.43E+04	1.02E+05
L4	7.02E+04	9.60E+04	7.06E+04	9.51E+04
NF	—	—	—	—
NS	6.32E+04	9.93E+04	6.34E+04	9.93E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-140. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

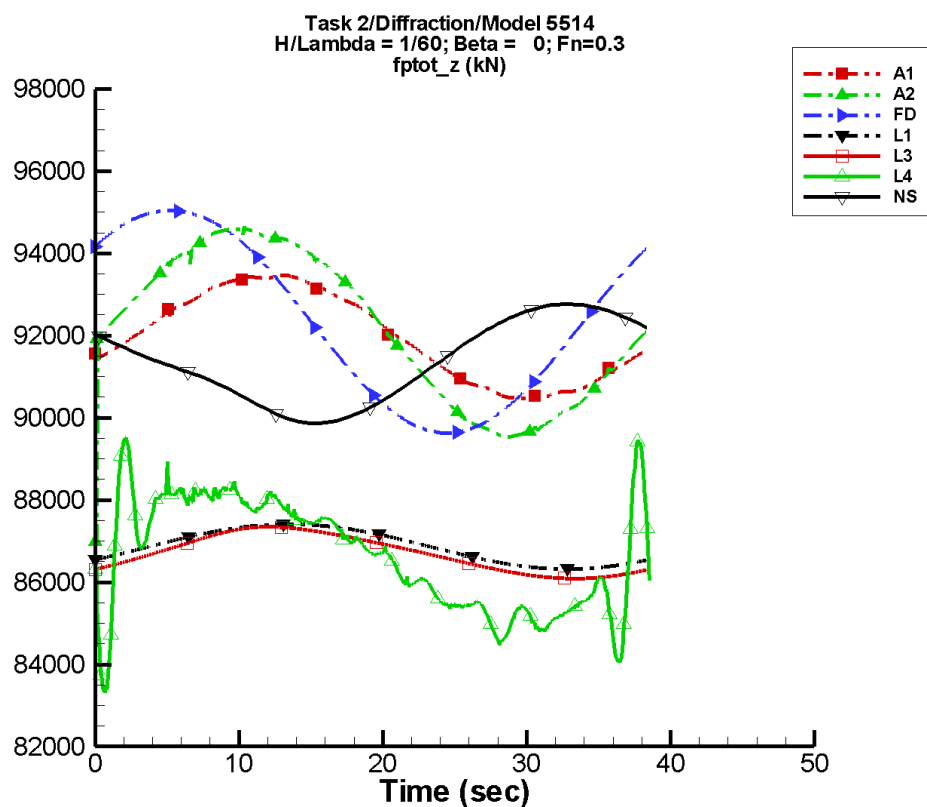
Table H-279. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.83E+04	30	38.7	-56
A2	8.87E+04	3.01E+04	33	4.76E+03	18
FD	1.00E+05	2.79E+04	20	486.	-131
L1	8.44E+04	1.65E+04	96	570.	50
L3	8.33E+04	2.49E+04	83	514.	-22
L4	7.69E+04	2.61E+04	45	2.60E+03	-126
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-280. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.38E+04	1.10E+05	7.40E+04	1.10E+05
A2	-471.	3.45E+05	4.76E+04	1.24E+05
FD	7.19E+04	1.28E+05	7.23E+04	1.28E+05
L1	6.82E+04	1.02E+05	6.83E+04	1.02E+05
L3	5.86E+04	1.09E+05	5.87E+04	1.09E+05
L4	3.02E+04	1.50E+05	4.76E+04	1.05E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-141. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–281. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

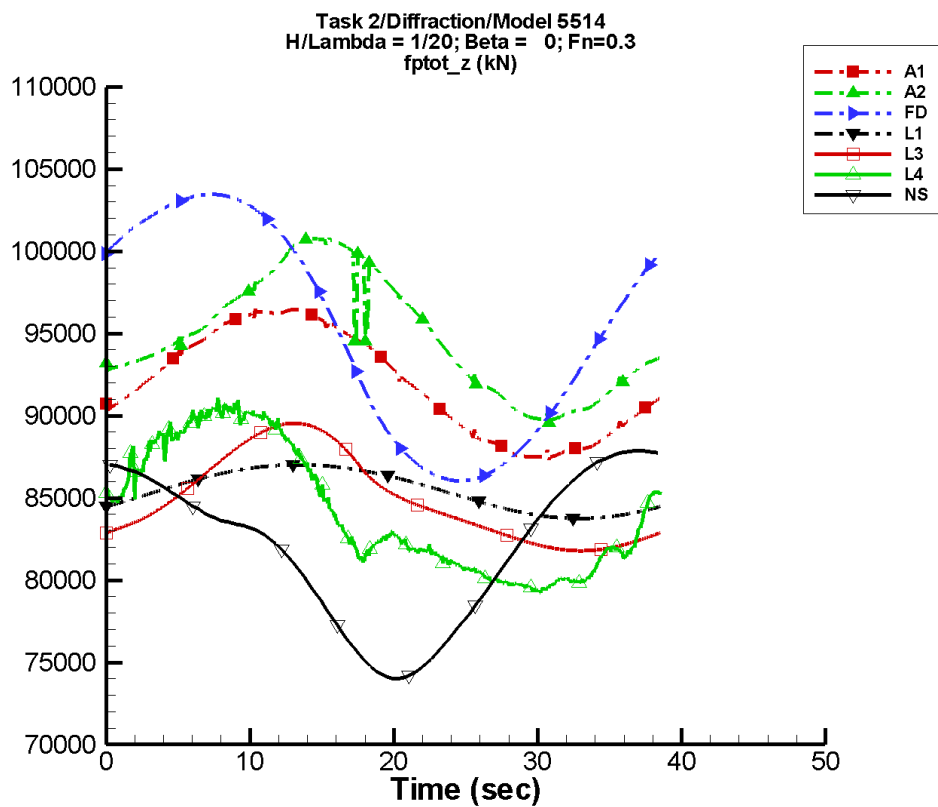
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.46E+03	-12	74.3	151
A2	9.22E+04	2.47E+03	1	137.	129
FD	9.24E+04	2.71E+03	48	39.9	-159
L1	8.69E+04	545.	-34	5.65	9
L3	8.67E+04	606.	-33	53.0	-83
L4	8.66E+04	1.59E+03	1	168.	18
NF	—	—	—	—	—
NS	9.13E+04	1.36E+03	137	174.	-86

Table H–282. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.04E+04	9.35E+04	9.05E+04	9.35E+04
A2	8.95E+04	9.47E+04	8.95E+04	9.46E+04
FD	8.96E+04	9.50E+04	8.96E+04	9.50E+04
L1	8.63E+04	8.74E+04	8.63E+04	8.74E+04
L3	8.61E+04	8.74E+04	8.61E+04	8.74E+04
L4	8.32E+04	8.98E+04	8.34E+04	8.96E+04
NF	—	—	—	—
NS	8.99E+04	9.28E+04	8.99E+04	9.27E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-142. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

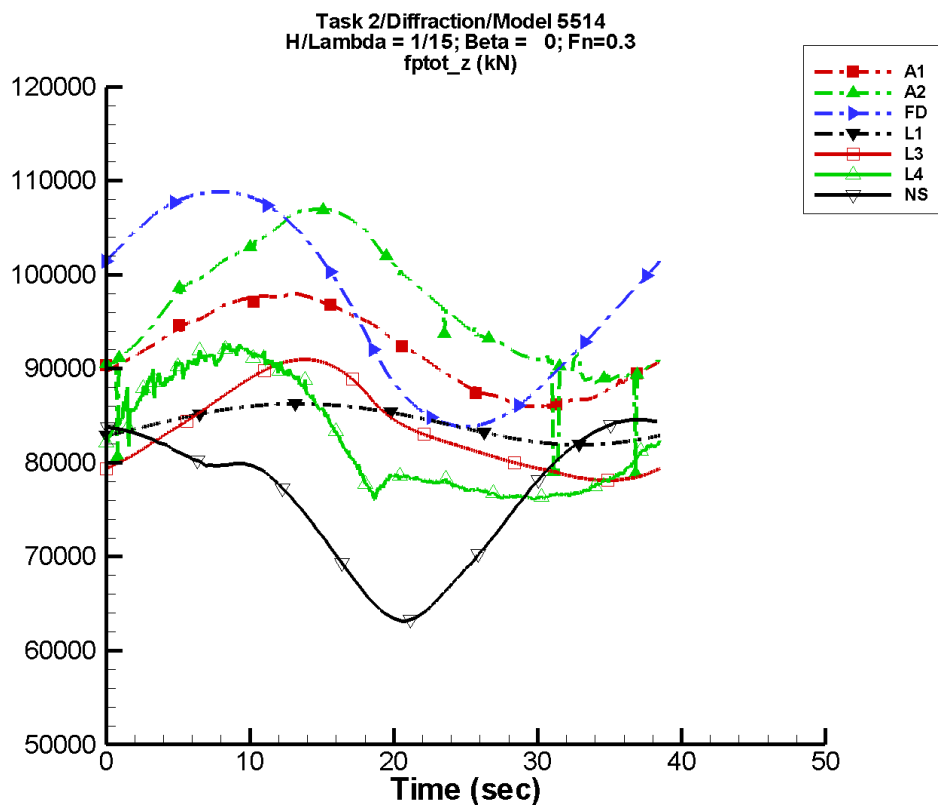
Table H–283. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	4.38E+03	-12	222.	151
A2	9.48E+04	4.60E+03	-31	1.18E+03	137
FD	9.52E+04	8.86E+03	40	829.	-136
L1	8.54E+04	1.63E+03	-34	56.5	6
L3	8.49E+04	3.53E+03	-29	799.	-129
L4	8.42E+04	5.14E+03	15	1.25E+03	-36
NF	—	—	—	—	—
NS	8.20E+04	6.22E+03	87	1.45E+03	-141

Table H–284. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.73E+04	9.65E+04	8.75E+04	9.64E+04
A2	8.96E+04	1.01E+05	8.98E+04	1.01E+05
FD	8.60E+04	1.03E+05	8.60E+04	1.03E+05
L1	8.38E+04	8.70E+04	8.38E+04	8.70E+04
L3	8.18E+04	8.95E+04	8.18E+04	8.95E+04
L4	7.92E+04	9.11E+04	7.94E+04	9.05E+04
NF	—	—	—	—
NS	7.40E+04	8.79E+04	7.42E+04	8.78E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-143. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

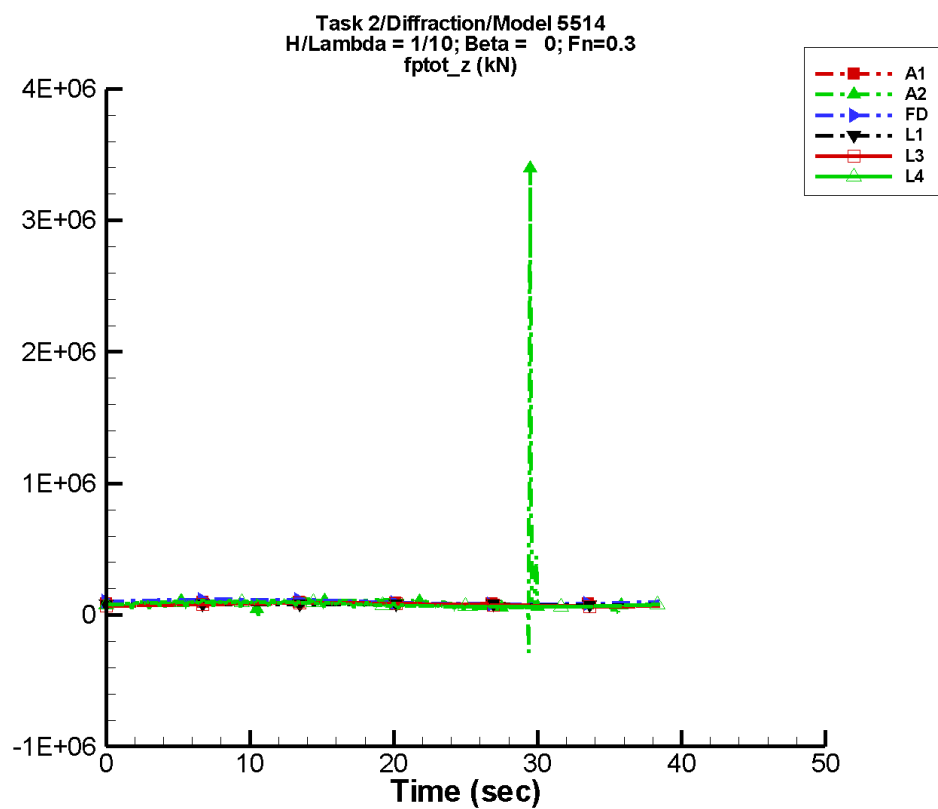
Table H–285. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.83E+03	-12	296.	151
A2	9.70E+04	8.76E+03	-36	447.	-143
FD	9.68E+04	1.25E+04	32	1.40E+03	-135
L1	8.42E+04	2.18E+03	-34	102.	6
L3	8.35E+04	5.91E+03	-34	1.24E+03	-132
L4	8.25E+04	7.79E+03	16	2.07E+03	-55
NF	—	—	—	—	—
NS	7.61E+04	9.43E+03	81	2.75E+03	-141

Table H–286. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.58E+04	9.80E+04	8.60E+04	9.79E+04
A2	7.87E+04	1.07E+05	8.47E+04	1.07E+05
FD	8.38E+04	1.09E+05	8.39E+04	1.09E+05
L1	8.19E+04	8.63E+04	8.19E+04	8.63E+04
L3	7.81E+04	9.10E+04	7.81E+04	9.10E+04
L4	7.60E+04	9.27E+04	7.62E+04	9.23E+04
NF	—	—	—	—
NS	6.31E+04	8.46E+04	6.34E+04	8.45E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-144. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

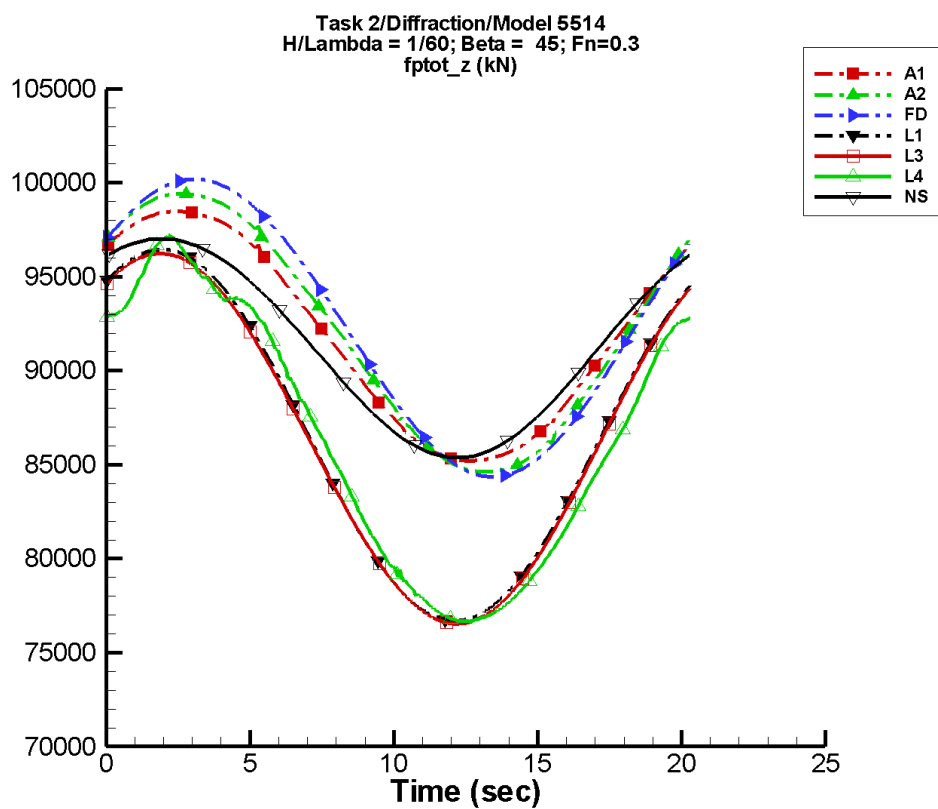
Table H–287. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	8.75E+03	-12	445.	151
A2	9.58E+04	1.18E+04	-58	9.30E+03	-106
FD	1.00E+05	1.90E+04	13	724.	-57
L1	8.06E+04	3.27E+03	-34	233.	6
L3	7.95E+04	1.25E+04	-52	840.	-66
L4	7.98E+04	1.79E+04	10	1.68E+03	-44
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–288. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.26E+04	1.01E+05	8.30E+04	1.01E+05
A2	-2.86E+05	3.40E+06	2.57E+04	4.89E+05
FD	8.28E+04	1.19E+05	8.28E+04	1.19E+05
L1	7.71E+04	8.37E+04	7.71E+04	8.37E+04
L3	6.54E+04	9.28E+04	6.54E+04	9.28E+04
L4	4.53E+04	1.22E+05	6.31E+04	1.05E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-145. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-289. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

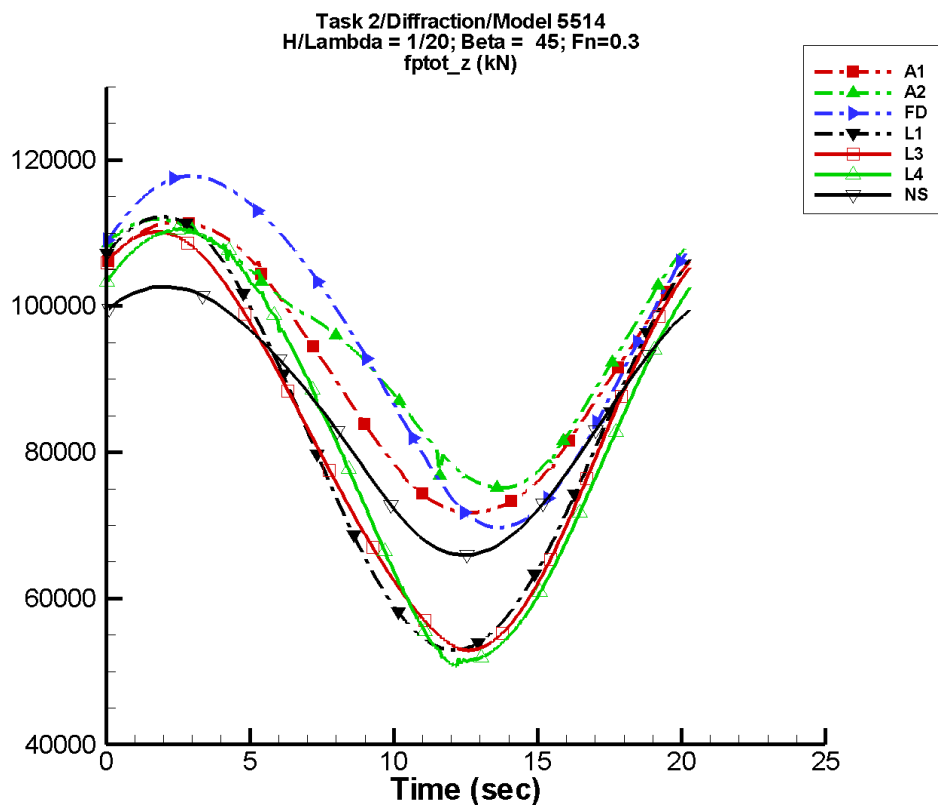
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.19E+04	6.81E+03	37	24.3	-18
A2	9.22E+04	7.53E+03	31	213.	66
FD	9.24E+04	7.91E+03	22	155.	82
L1	8.66E+04	9.86E+03	52	8.20	-49
L3	8.64E+04	9.80E+03	52	110.	109
L4	8.63E+04	9.58E+03	43	127.	-104
NF	—	—	—	—	—
NS	9.14E+04	5.88E+03	54	99.7	177

Table H-290. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.52E+04	9.89E+04	8.52E+04	9.89E+04
A2	8.46E+04	9.99E+04	8.46E+04	9.98E+04
FD	8.43E+04	1.00E+05	8.44E+04	1.00E+05
L1	7.67E+04	9.65E+04	7.67E+04	9.65E+04
L3	7.65E+04	9.62E+04	7.65E+04	9.62E+04
L4	7.67E+04	9.72E+04	7.67E+04	9.71E+04
NF	—	—	—	—
NS	8.54E+04	9.72E+04	8.54E+04	9.72E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-146. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

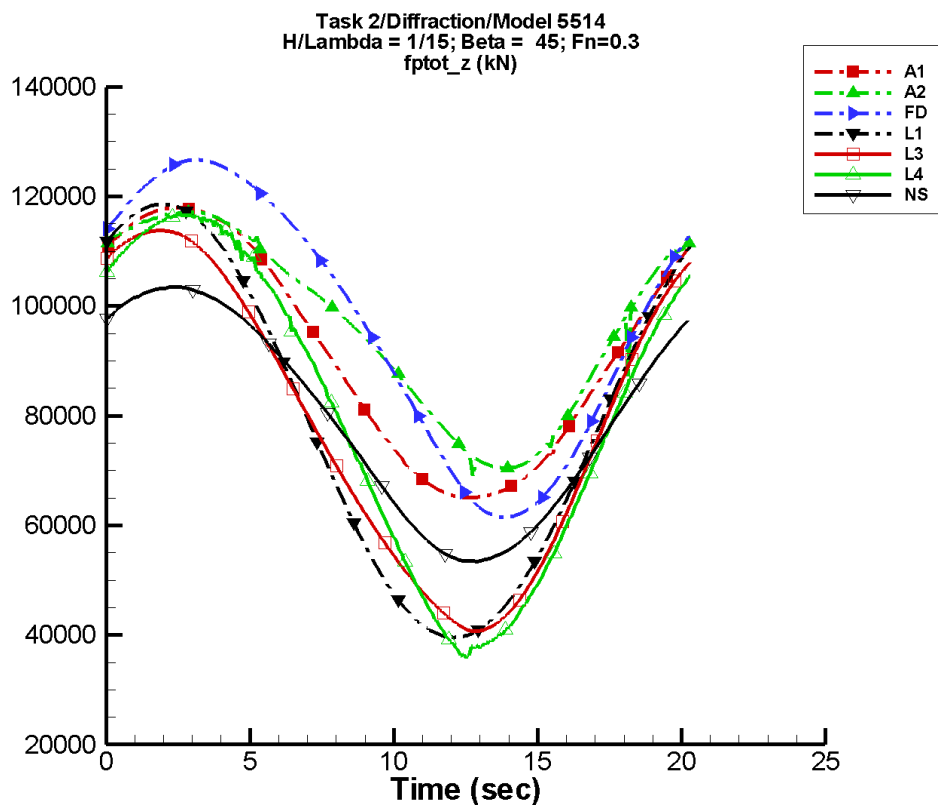
Table H-291. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.19E+04	2.04E+04	37	72.7	-18
A2	9.48E+04	1.77E+04	32	3.07E+03	85
FD	9.51E+04	2.37E+04	19	1.86E+03	89
L1	8.25E+04	2.96E+04	52	90.6	-77
L3	8.20E+04	2.80E+04	50	1.67E+03	108
L4	8.26E+04	2.92E+04	41	1.70E+03	171
NF	—	—	—	—	—
NS	8.53E+04	1.84E+04	49	990.	160

Table H-292. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.17E+04	1.13E+05	7.18E+04	1.13E+05
A2	7.51E+04	1.13E+05	7.52E+04	1.13E+05
FD	6.97E+04	1.18E+05	6.98E+04	1.18E+05
L1	5.29E+04	1.12E+05	5.30E+04	1.12E+05
L3	5.29E+04	1.10E+05	5.29E+04	1.10E+05
L4	5.08E+04	1.11E+05	5.11E+04	1.10E+05
NF	—	—	—	—
NS	6.60E+04	1.03E+05	6.62E+04	1.03E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-147. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

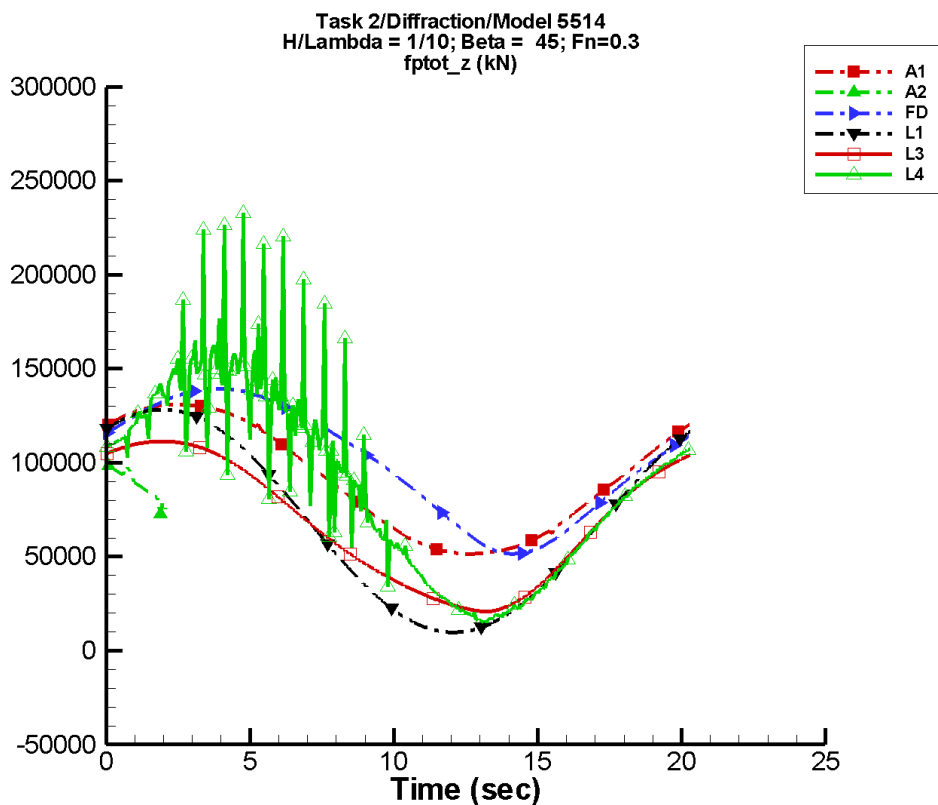
Table H-293. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.19E+04	2.71E+04	37	96.8	-18
A2	9.67E+04	2.29E+04	29	3.52E+03	106
FD	9.68E+04	3.16E+04	16	3.28E+03	91
L1	7.90E+04	3.94E+04	52	167.	-79
L3	7.83E+04	3.57E+04	49	2.65E+03	109
L4	8.02E+04	3.86E+04	39	3.09E+03	164
NF	—	—	—	—	—
NS	7.97E+04	2.49E+04	44	1.23E+03	143

Table H-294. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	6.50E+04	1.20E+05	6.51E+04	1.20E+05
A2	6.88E+04	1.19E+05	6.98E+04	1.19E+05
FD	6.15E+04	1.27E+05	6.16E+04	1.27E+05
L1	3.95E+04	1.19E+05	3.96E+04	1.19E+05
L3	4.07E+04	1.14E+05	4.07E+04	1.14E+05
L4	3.57E+04	1.17E+05	3.66E+04	1.17E+05
NF	—	—	—	—
NS	5.34E+04	1.04E+05	5.36E+04	1.04E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-148. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

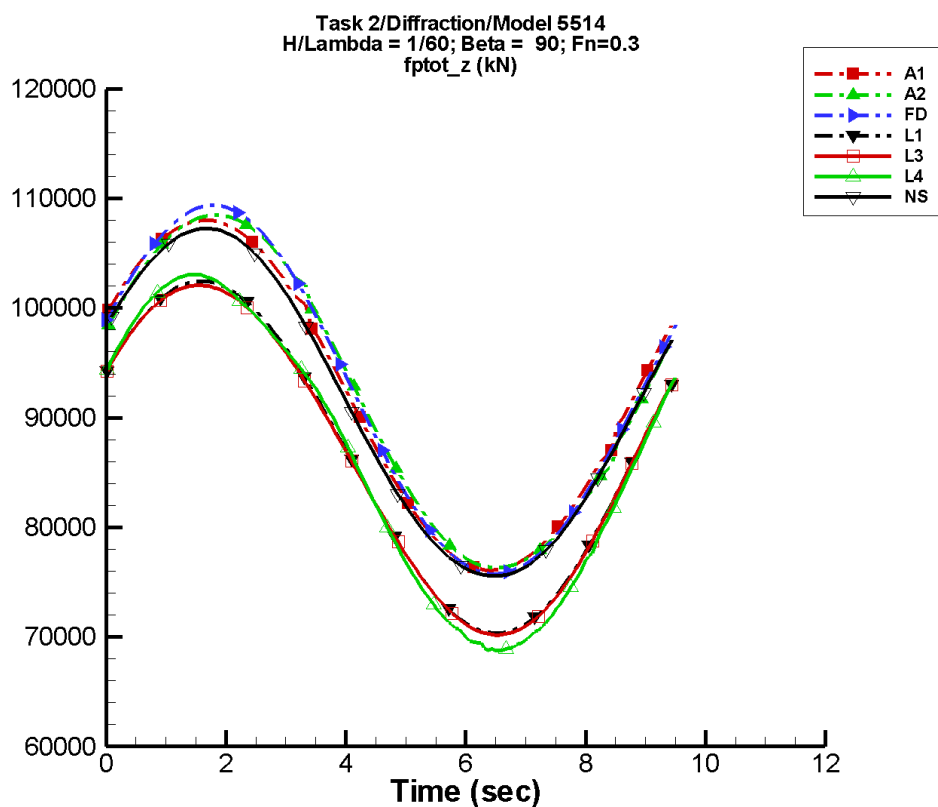
Table H-295. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.18E+04	4.08E+04	37	145.	-18
A2	1.02E+05	4.01E+04	-127	2.98E+04	81
FD	1.00E+05	4.12E+04	8	4.05E+03	100
L1	6.90E+04	5.91E+04	52	391.	-81
L3	6.78E+04	4.45E+04	50	2.75E+03	117
L4	8.70E+04	6.43E+04	25	8.68E+03	-136
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-296. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	5.15E+04	1.34E+05	5.16E+04	1.34E+05
A2	7.27E+04	1.02E+05	7.65E+04	1.01E+05
FD	5.15E+04	1.40E+05	5.17E+04	1.39E+05
L1	9.74E+03	1.28E+05	9.79E+03	1.28E+05
L3	2.08E+04	1.11E+05	2.09E+04	1.11E+05
L4	1.47E+04	2.33E+05	1.61E+04	1.60E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-149. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-297. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

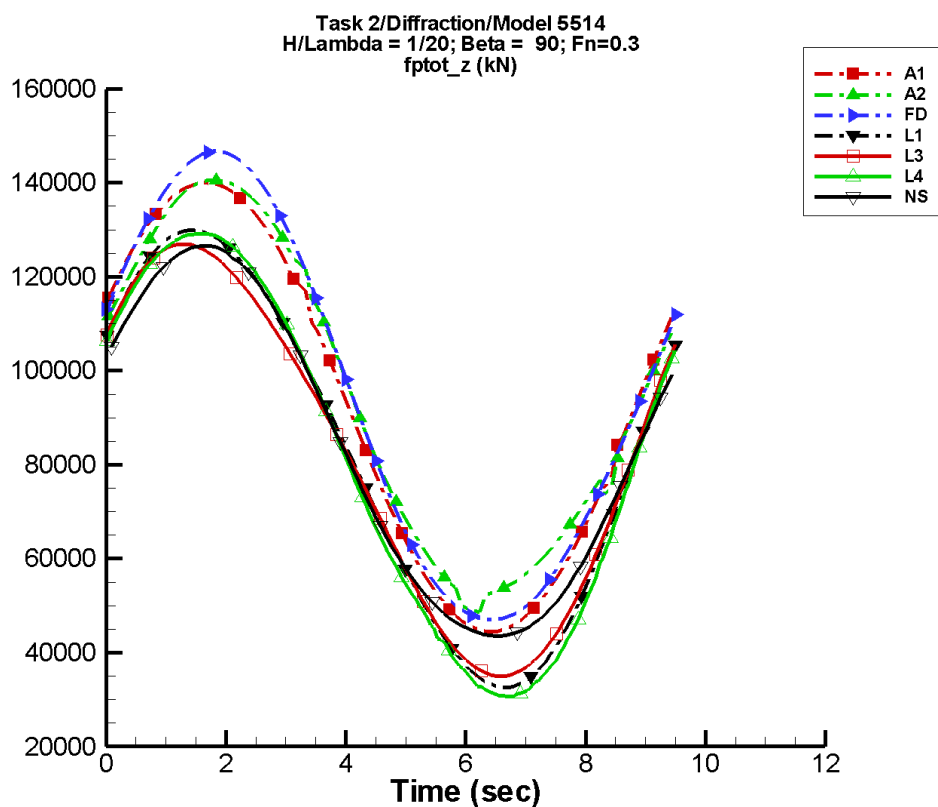
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.61E+04	22	17.9	-25
A2	9.23E+04	1.62E+04	17	205.	-99
FD	9.24E+04	1.68E+04	18	281.	-101
L1	8.65E+04	1.60E+04	23	427.	56
L3	8.63E+04	1.59E+04	24	594.	64
L4	8.61E+04	1.69E+04	23	829.	75
NF	—	—	—	—	—
NS	9.11E+04	1.58E+04	26	237.	-24

Table H-298. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.61E+04	1.08E+05	7.62E+04	1.08E+05
A2	7.63E+04	1.08E+05	7.65E+04	1.09E+05
FD	7.57E+04	1.09E+05	7.59E+04	1.09E+05
L1	7.03E+04	1.02E+05	7.04E+04	1.02E+05
L3	7.02E+04	1.02E+05	7.02E+04	1.02E+05
L4	6.88E+04	1.03E+05	6.89E+04	1.03E+05
NF	—	—	—	—
NS	7.56E+04	1.07E+05	7.57E+04	1.07E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-150. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

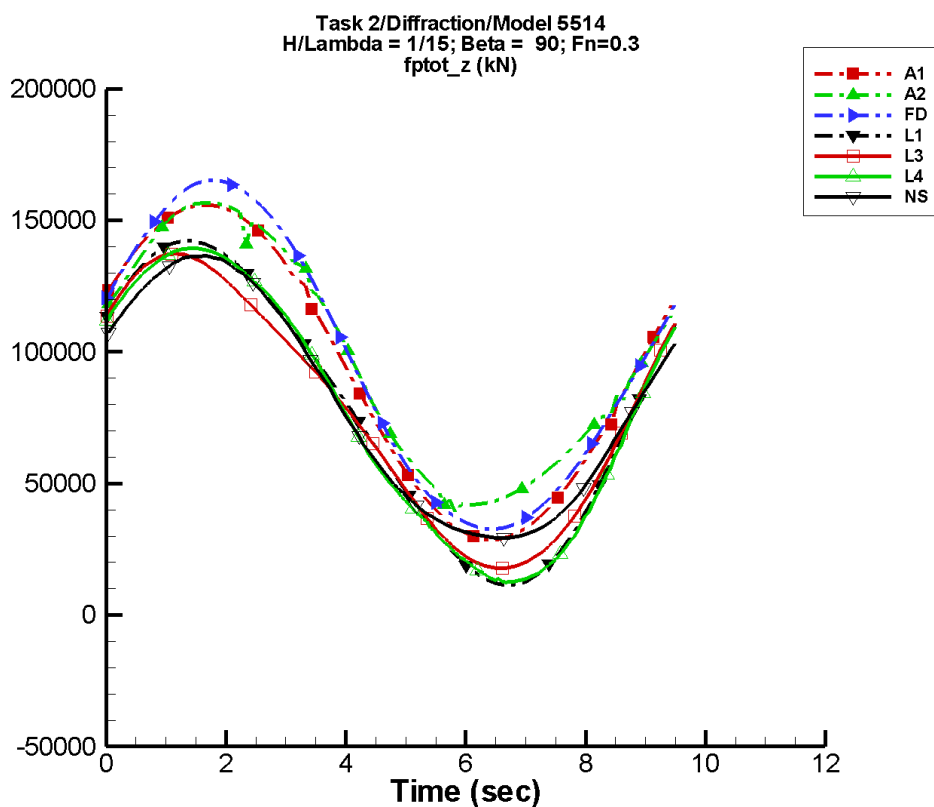
Table H–299. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.22E+04	4.81E+04	22	53.5	-26
A2	9.49E+04	4.45E+04	19	2.95E+03	-107
FD	9.52E+04	4.99E+04	18	2.40E+03	-101
L1	8.18E+04	4.81E+04	23	3.77E+03	56
L3	8.14E+04	4.53E+04	25	4.31E+03	61
L4	8.03E+04	4.93E+04	23	3.12E+03	44
NF	—	—	—	—	—
NS	8.30E+04	4.16E+04	27	1.72E+03	-20

Table H–300. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	4.44E+04	1.40E+05	4.49E+04	1.40E+05
A2	4.87E+04	1.41E+05	5.11E+04	1.41E+05
FD	4.70E+04	1.47E+05	4.74E+04	1.46E+05
L1	3.26E+04	1.30E+05	3.28E+04	1.30E+05
L3	3.50E+04	1.27E+05	3.52E+04	1.27E+05
L4	3.06E+04	1.29E+05	3.09E+04	1.29E+05
NF	—	—	—	—
NS	4.36E+04	1.27E+05	4.39E+04	1.26E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-151. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

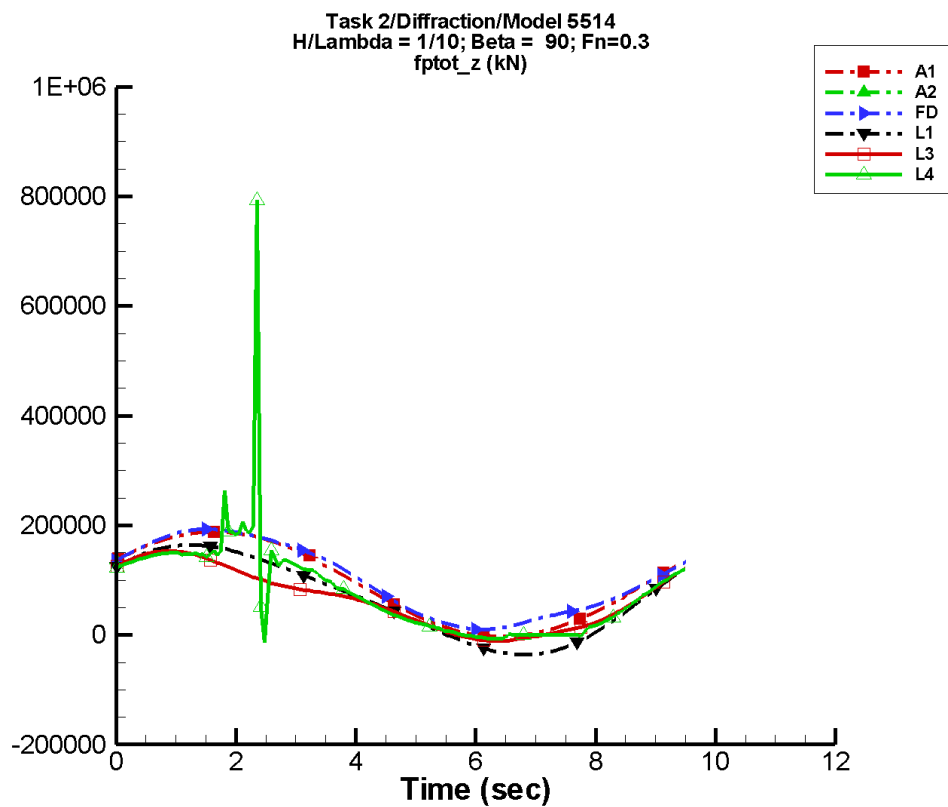
Table H-301. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.23E+04	6.40E+04	22	71.3	-26
A2	9.73E+04	5.73E+04	20	4.22E+03	-104
FD	9.69E+04	6.62E+04	18	3.17E+03	-101
L1	7.78E+04	6.41E+04	23	6.69E+03	56
L3	7.73E+04	5.79E+04	27	7.53E+03	61
L4	7.62E+04	6.33E+04	24	5.19E+03	43
NF	—	—	—	—	—
NS	7.91E+04	5.39E+04	29	3.24E+03	-15

Table H-302. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	2.87E+04	1.56E+05	2.94E+04	1.56E+05
A2	3.89E+04	1.57E+05	4.20E+04	1.57E+05
FD	3.26E+04	1.65E+05	3.33E+04	1.64E+05
L1	1.14E+04	1.42E+05	1.17E+04	1.42E+05
L3	1.77E+04	1.37E+05	1.79E+04	1.37E+05
L4	1.24E+04	1.39E+05	1.28E+04	1.39E+05
NF	—	—	—	—
NS	2.93E+04	1.37E+05	2.95E+04	1.36E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-152. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

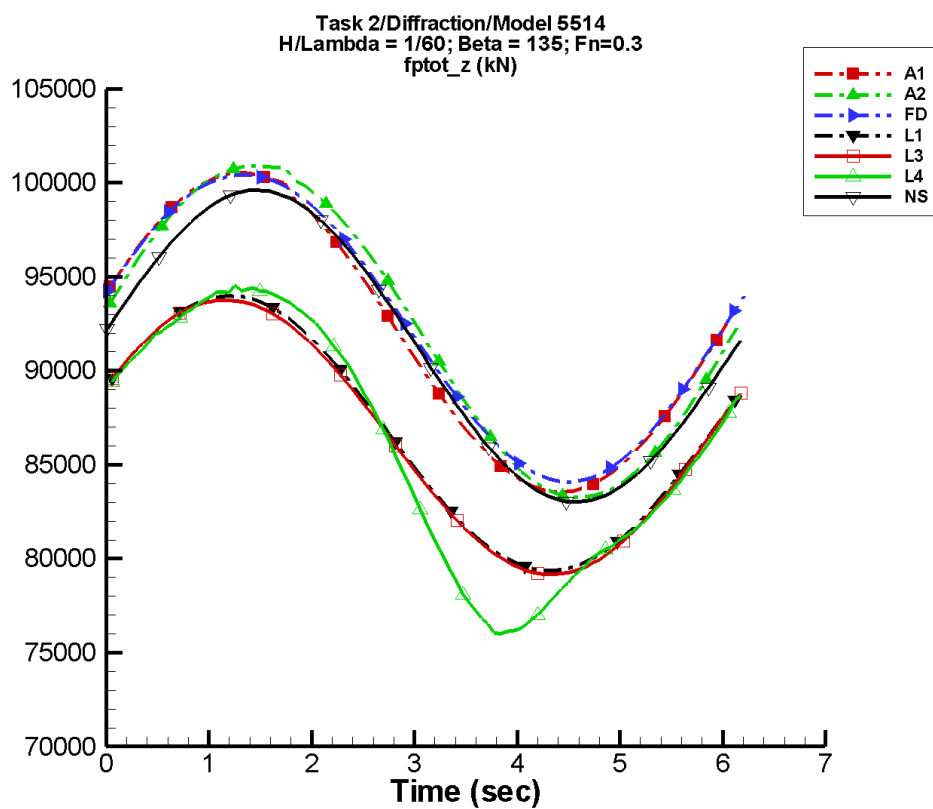
Table H-303. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.24E+04	9.62E+04	22	107.	-26
A2	4.39E+05	8.60E+05	-105	4.45E+05	11
FD	1.01E+05	8.94E+04	21	3.60E+03	-101
L1	6.62E+04	9.62E+04	23	1.50E+04	56
L3	6.57E+04	7.35E+04	34	1.65E+04	63
L4	7.71E+04	9.27E+04	22	1.05E+04	-52
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-304. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.11E+03	1.88E+05	-2.08E+03	1.88E+05
A2	1.36E+05	1.41E+05	1.36E+05	1.41E+05
FD	9.90E+03	1.93E+05	1.15E+04	1.91E+05
L1	-3.62E+04	1.64E+05	-3.57E+04	1.64E+05
L3	-1.12E+04	1.53E+05	-1.07E+04	1.52E+05
L4	-1.31E+04	7.97E+05	-5.33E+03	2.33E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-153. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-305. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

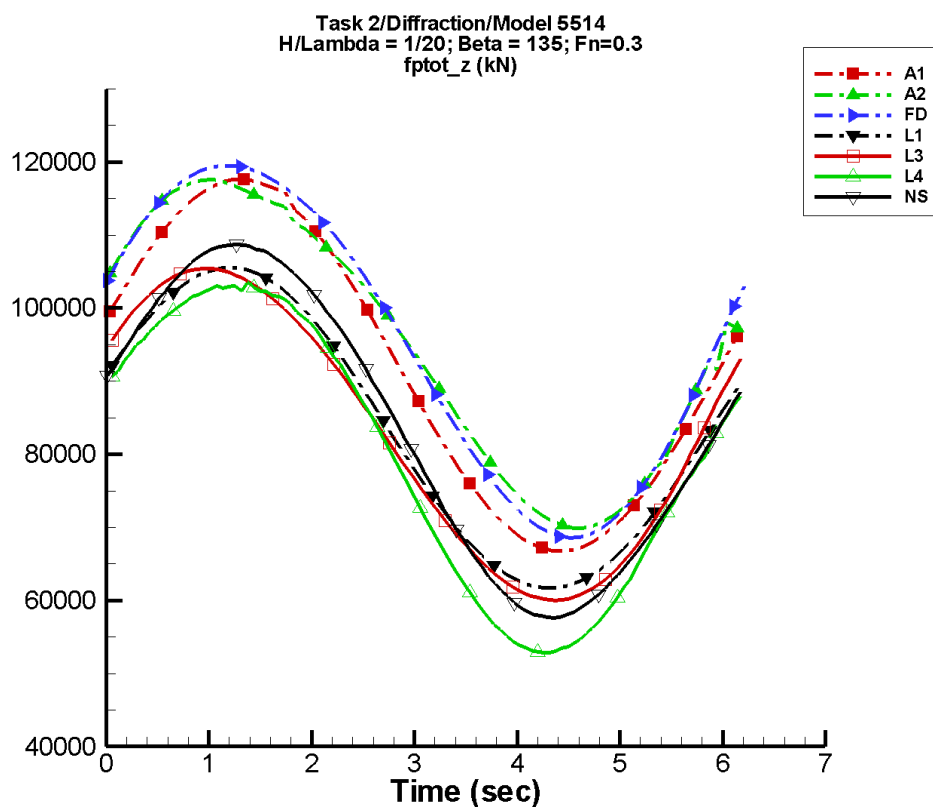
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	8.49E+03	8	77.0	-53
A2	9.22E+04	8.86E+03	-2	200.	37
FD	9.24E+04	8.18E+03	-11	163.	26
L1	8.66E+04	7.30E+03	11	30.4	-67
L3	8.65E+04	7.32E+03	11	112.	25
L4	8.60E+04	8.69E+03	14	1.23E+03	-166
NF	—	—	—	—	—
NS	9.13E+04	8.25E+03	5	36.1	176

Table H-306. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.35E+04	1.01E+05	8.37E+04	1.00E+05
A2	8.33E+04	1.01E+05	8.35E+04	1.01E+05
FD	8.41E+04	1.00E+05	8.41E+04	1.00E+05
L1	7.94E+04	9.40E+04	7.94E+04	9.39E+04
L3	7.92E+04	9.38E+04	7.92E+04	9.37E+04
L4	7.60E+04	9.45E+04	7.63E+04	9.43E+04
NF	—	—	—	—
NS	8.30E+04	9.96E+04	8.31E+04	9.95E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-154. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

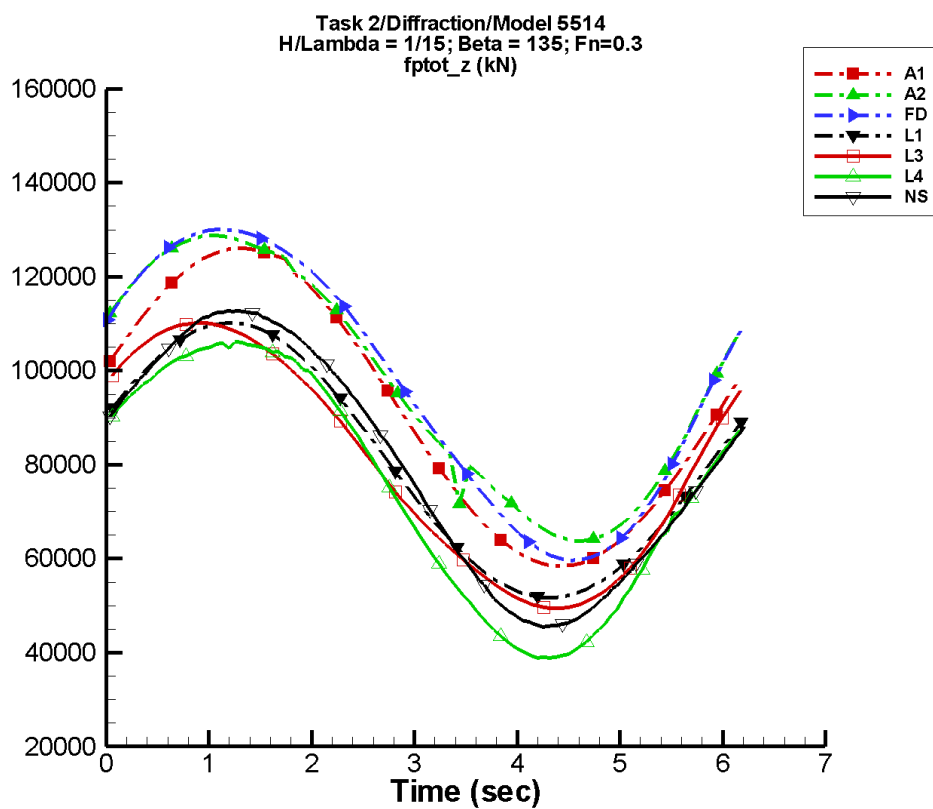
Table H-307. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.54E+04	8	230.	-53
A2	9.48E+04	2.36E+04	7	3.10E+03	39
FD	9.52E+04	2.55E+04	-8	1.88E+03	24
L1	8.34E+04	2.19E+04	11	232.	-75
L3	8.29E+04	2.27E+04	15	1.69E+03	37
L4	7.96E+04	2.50E+04	12	1.69E+03	138
NF	—	—	—	—	—
NS	8.35E+04	2.51E+04	15	509.	-177

Table H-308. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	6.67E+04	1.18E+05	6.74E+04	1.17E+05
A2	6.99E+04	1.18E+05	7.06E+04	1.17E+05
FD	6.86E+04	1.20E+05	6.85E+04	1.19E+05
L1	6.17E+04	1.06E+05	6.19E+04	1.05E+05
L3	6.00E+04	1.05E+05	6.02E+04	1.05E+05
L4	5.29E+04	1.04E+05	5.32E+04	1.03E+05
NF	—	—	—	—
NS	5.77E+04	1.09E+05	5.80E+04	1.08E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-155. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

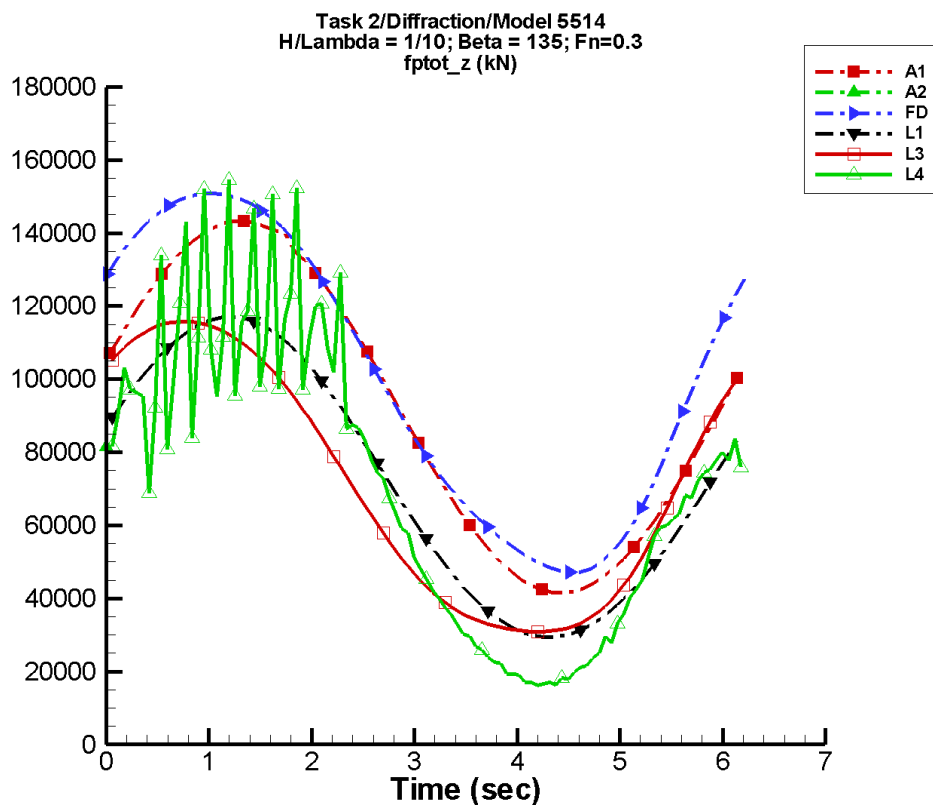
Table H-309. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.38E+04	8	307.	-53
A2	9.70E+04	3.23E+04	11	3.23E+03	28
FD	9.69E+04	3.51E+04	-6	3.28E+03	22
L1	8.05E+04	2.92E+04	11	405.	-76
L3	7.98E+04	3.04E+04	18	2.79E+03	36
L4	7.50E+04	3.32E+04	13	2.63E+03	135
NF	—	—	—	—	—
NS	8.00E+04	3.27E+04	16	1.31E+03	175

Table H-310. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	5.84E+04	1.26E+05	5.92E+04	1.25E+05
A2	6.38E+04	1.29E+05	6.49E+04	1.29E+05
FD	5.96E+04	1.30E+05	5.95E+04	1.29E+05
L1	5.17E+04	1.10E+05	5.20E+04	1.10E+05
L3	4.94E+04	1.10E+05	4.97E+04	1.10E+05
L4	3.89E+04	1.06E+05	3.93E+04	1.06E+05
NF	—	—	—	—
NS	4.54E+04	1.13E+05	4.58E+04	1.13E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-156. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

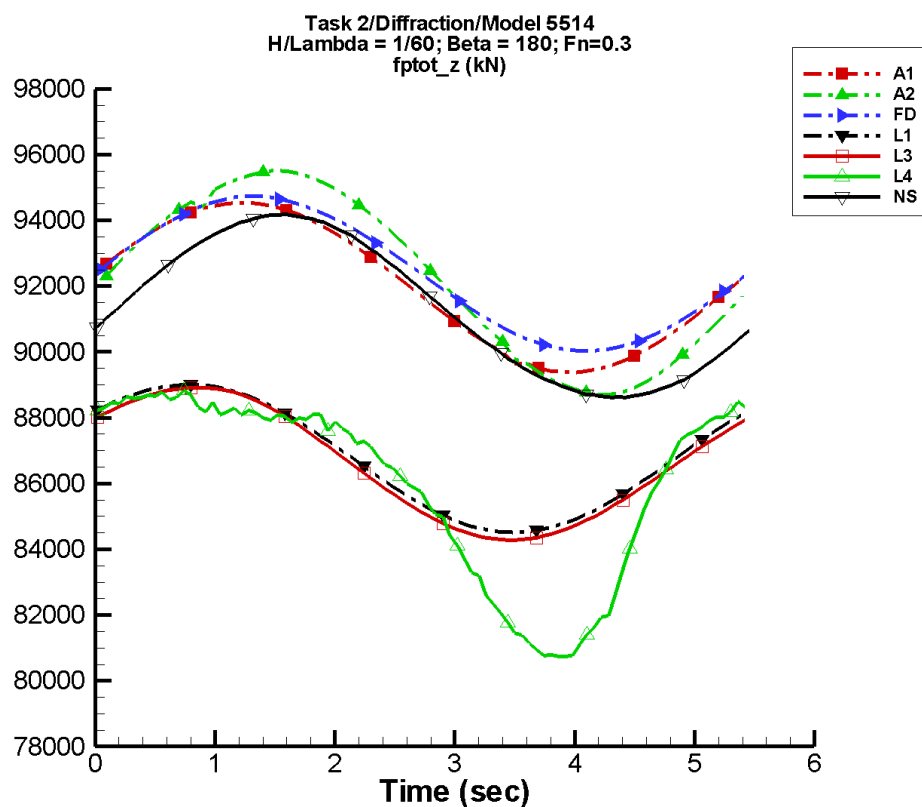
Table H-311. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.08E+04	8	461.	-53
A2	-2.00E+04	3.83E+04	-124	1.19E+05	150
FD	1.00E+05	5.23E+04	3	3.83E+03	12
L1	7.24E+04	4.38E+04	11	894.	-77
L3	7.12E+04	4.41E+04	30	3.22E+03	25
L4	7.00E+04	5.12E+04	11	7.90E+03	-173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-312. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	4.15E+04	1.43E+05	4.28E+04	1.42E+05
A2	7.45E+04	8.14E+04	7.45E+04	8.14E+04
FD	4.71E+04	1.51E+05	4.68E+04	1.50E+05
L1	2.94E+04	1.17E+05	2.98E+04	1.17E+05
L3	3.09E+04	1.16E+05	3.11E+04	1.16E+05
L4	1.62E+04	1.55E+05	1.72E+04	1.21E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-157. Time history of  $F_z^{ptot}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–313. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.57E+03	15	45.5	109
A2	9.22E+04	3.35E+03	-1	139.	97
FD	9.24E+04	2.34E+03	93	24.4	-173
L1	8.68E+04	2.24E+03	62	28.1	-114
L3	8.66E+04	2.30E+03	61	65.8	-61
L4	8.60E+04	3.54E+03	50	1.40E+03	171
NF	—	—	—	—	—
NS	9.13E+04	2.77E+03	-12	56.4	-70

Table H–314. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.94E+04	9.45E+04	8.95E+04	9.45E+04
A2	8.87E+04	9.55E+04	8.88E+04	9.54E+04
FD	9.00E+04	9.47E+04	9.01E+04	9.46E+04
L1	8.45E+04	8.90E+04	8.45E+04	8.90E+04
L3	8.43E+04	8.89E+04	8.43E+04	8.89E+04
L4	8.07E+04	8.88E+04	8.09E+04	8.87E+04
NF	—	—	—	—
NS	8.86E+04	9.42E+04	8.87E+04	9.41E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514

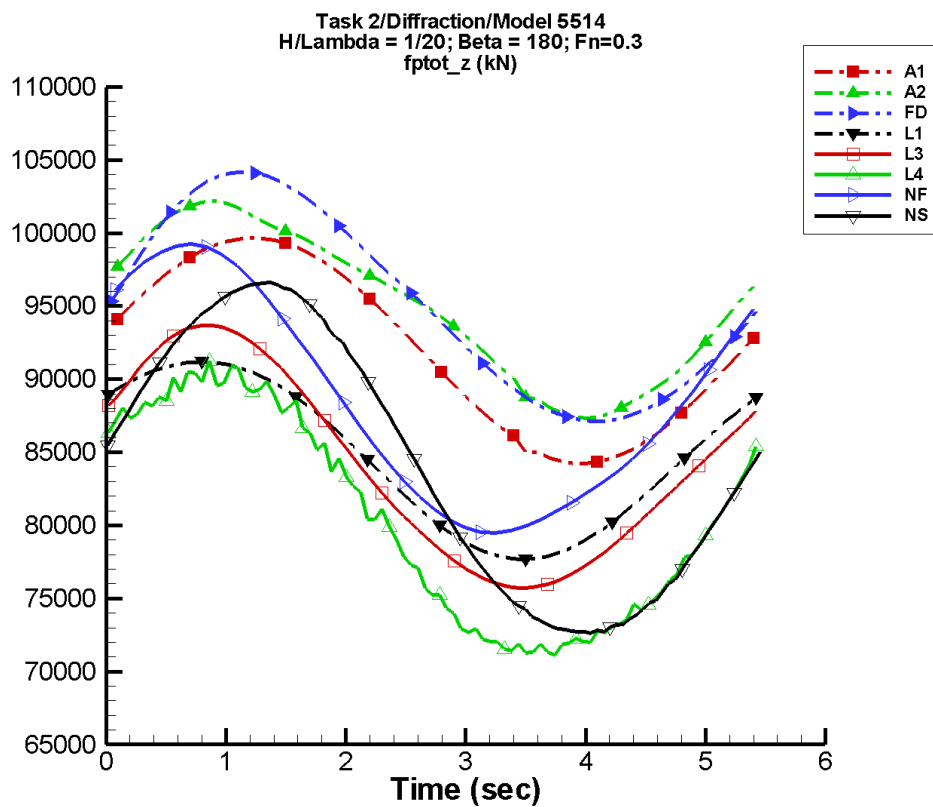


Figure H-158. Time history of  $F_z^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–315. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.21E+04	7.68E+03	15	136.	109
A2	9.50E+04	6.86E+03	19	1.13E+03	59
FD	9.52E+04	8.38E+03	97	769.	156
L1	8.46E+04	6.74E+03	62	225.	-123
L3	8.41E+04	8.64E+03	59	717.	-6
L4	8.05E+04	9.67E+03	52	401.	19
NF	8.86E+04	9.64E+03	128	922.	138
NS	8.41E+04	1.19E+04	8	414.	-103

Table H–316. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.42E+04	9.97E+04	8.45E+04	9.94E+04
A2	8.73E+04	1.02E+05	8.77E+04	1.02E+05
FD	8.71E+04	1.04E+05	8.74E+04	1.04E+05
L1	7.77E+04	9.12E+04	7.78E+04	9.11E+04
L3	7.57E+04	9.37E+04	7.58E+04	9.35E+04
L4	7.11E+04	9.12E+04	7.14E+04	9.03E+04
NF	7.95E+04	9.92E+04	8.00E+04	9.83E+04
NS	7.26E+04	9.66E+04	7.28E+04	9.64E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514

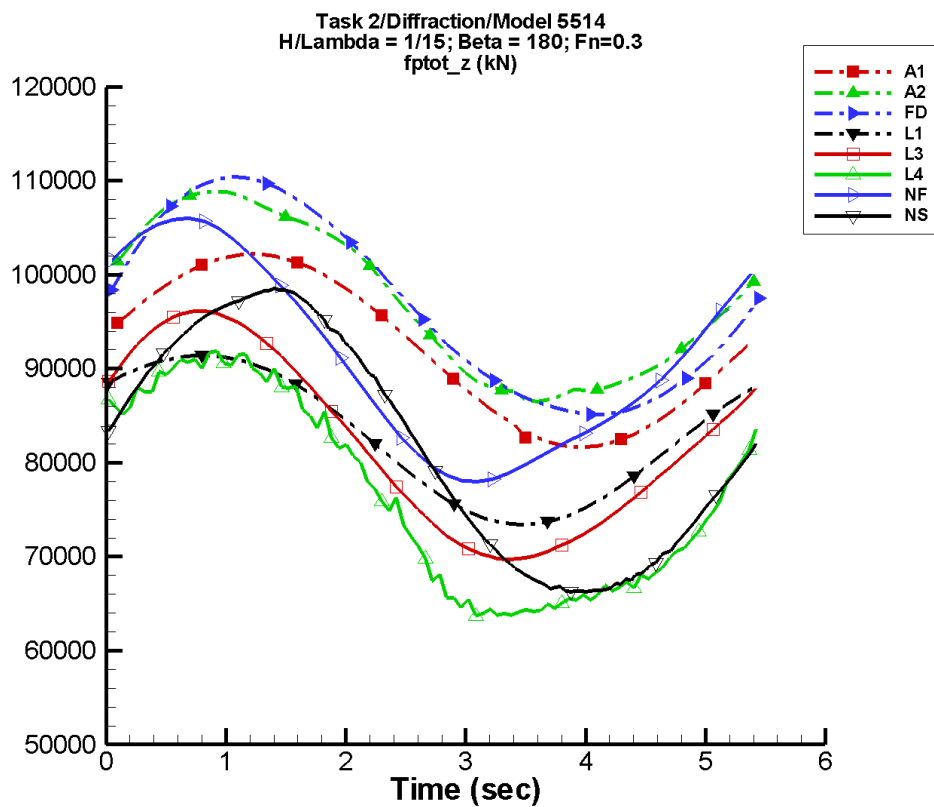


Figure H-159. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

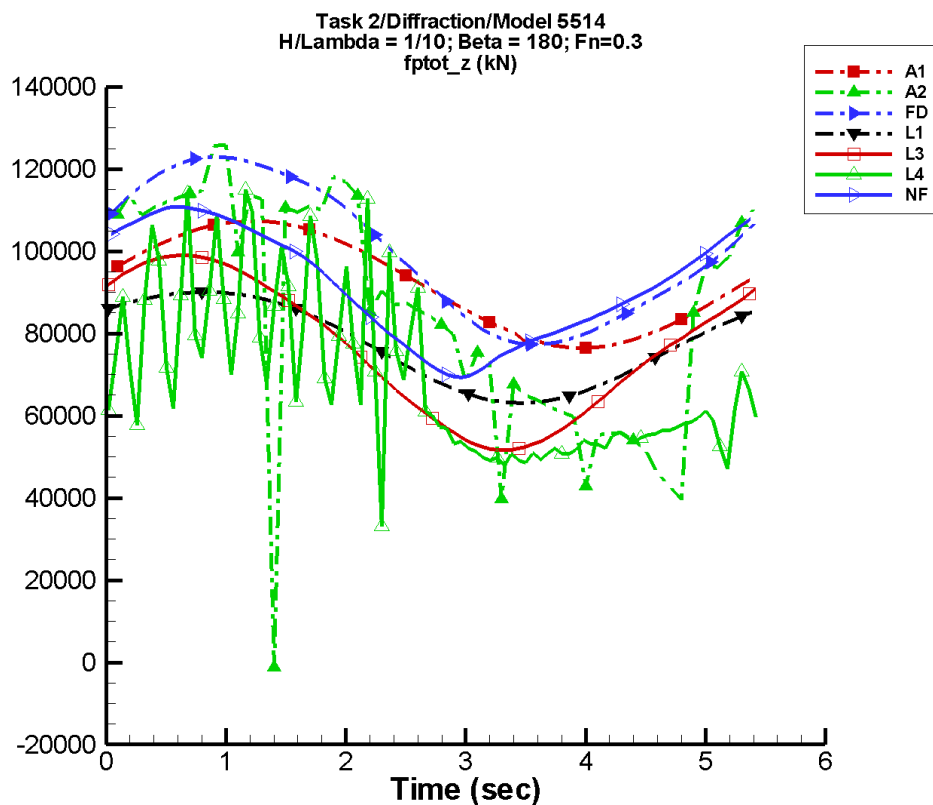
Table H-317. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.21E+04	1.02E+04	15	181.	109
A2	9.73E+04	1.12E+04	26	535.	-33
FD	9.68E+04	1.27E+04	101	1.31E+03	153
L1	8.28E+04	8.98E+03	62	395.	-124
L3	8.21E+04	1.28E+04	61	1.04E+03	-7
L4	7.67E+04	1.40E+04	52	1.10E+03	-8
NF	9.13E+04	1.35E+04	131	1.36E+03	125
NS	8.17E+04	1.60E+04	8	555.	-127

Table H-318. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	8.17E+04	1.02E+05	8.20E+04	1.02E+05
A2	8.65E+04	1.09E+05	8.72E+04	1.08E+05
FD	8.51E+04	1.10E+05	8.54E+04	1.10E+05
L1	7.34E+04	9.14E+04	7.35E+04	9.13E+04
L3	6.97E+04	9.61E+04	6.99E+04	9.59E+04
L4	6.34E+04	9.19E+04	6.40E+04	9.10E+04
NF	7.78E+04	1.06E+05	7.84E+04	1.05E+05
NS	6.63E+04	9.85E+04	6.64E+04	9.83E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-160. Time history of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

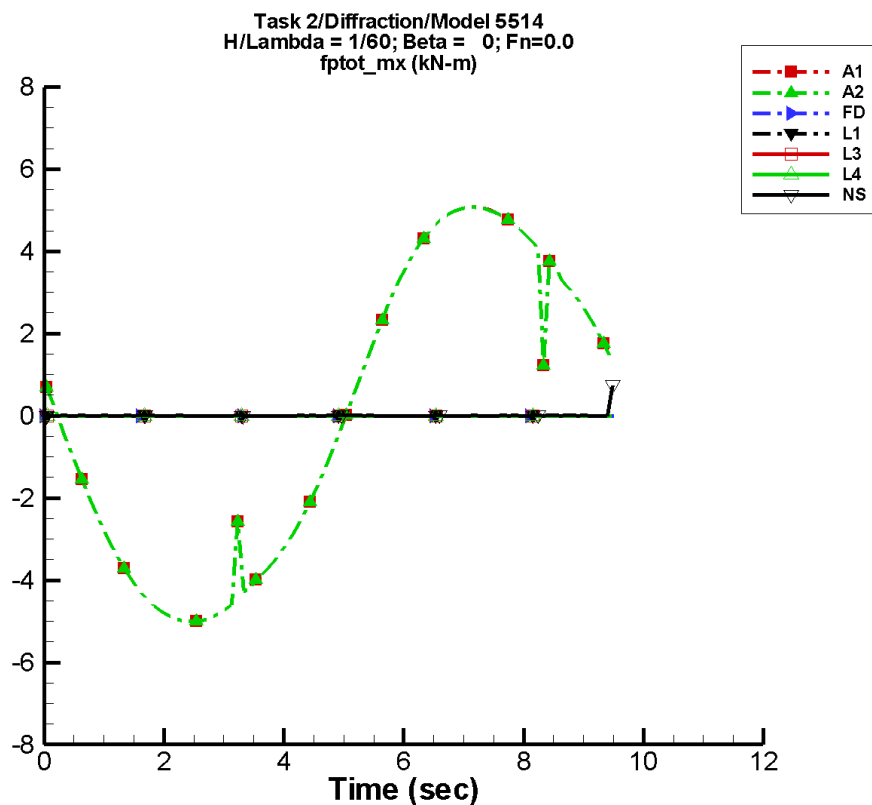
Table H–319. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.22E+04	1.54E+04	15	272.	109
A2	8.59E+04	2.92E+04	25	1.03E+04	89
FD	1.00E+05	2.25E+04	116	811.	66
L1	7.74E+04	1.35E+04	62	879.	-125
L3	7.63E+04	2.26E+04	71	1.21E+03	-95
L4	6.79E+04	1.70E+04	38	4.90E+03	-37
NF	9.27E+04	1.98E+04	117	2.68E+03	51
NS	—	—	—	—	—

Table H–320. Minimum and maximum of  $F_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	7.65E+04	1.07E+05	7.70E+04	1.07E+05
A2	-1.27E+03	1.26E+05	5.17E+04	1.20E+05
FD	7.73E+04	1.23E+05	7.82E+04	1.22E+05
L1	6.31E+04	9.01E+04	6.33E+04	9.00E+04
L3	5.16E+04	9.90E+04	5.21E+04	9.87E+04
L4	3.31E+04	1.15E+05	4.96E+04	9.11E+04
NF	6.93E+04	1.16E+05	7.06E+04	1.16E+05
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-161. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-321. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

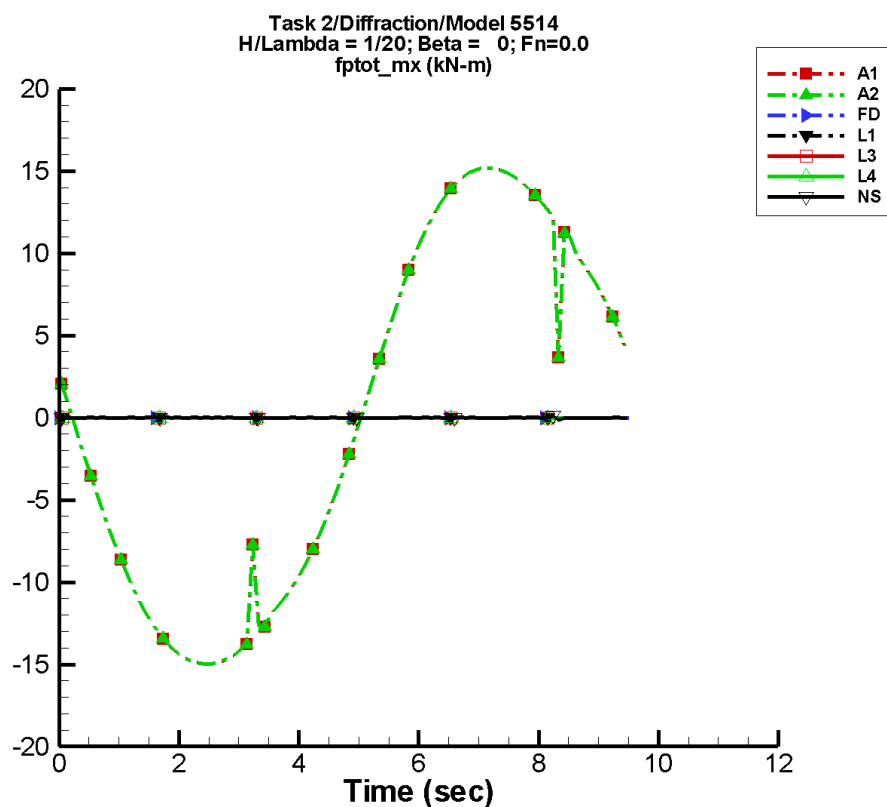
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.32E-02	5.12	168	2.05E-02	47
A2	-1.31E-02	5.12	168	2.06E-02	47
FD	2.47E-07	3.02E-05	-4	1.49E-05	48
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	4.41E-05	7.87E-04	119	2.48E-03	155

Table H-322. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.01	5.08	-4.98	5.04
A2	-5.01	5.08	-4.98	5.04
FD	-6.57E-04	4.91E-04	-9.21E-05	1.75E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.746	0.742	-1.94E-02	1.97E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-162. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

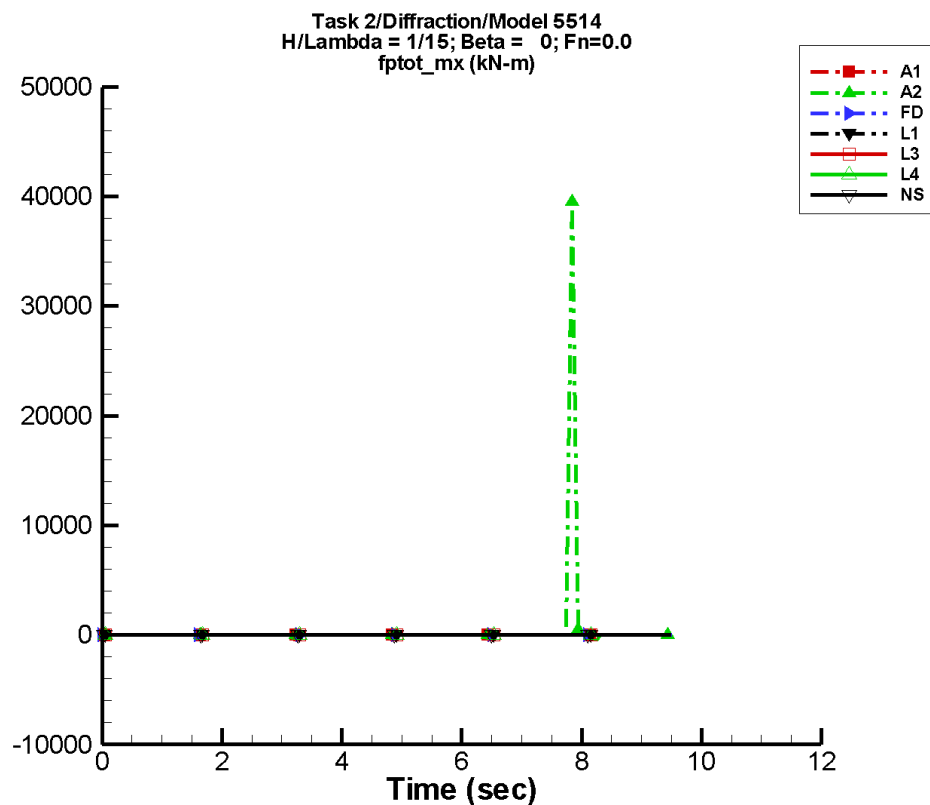
Table H-323. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.94E-02	15.3	168	6.15E-02	47
A2	-3.95E-02	15.3	168	6.15E-02	47
FD	-3.59E-05	3.60E-05	98	1.59E-05	116
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-8.98E-04	2.40E-03	120	4.25E-03	-6

Table H-324. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-15.0	15.2	-14.9	15.1
A2	-15.0	15.2	-14.9	15.1
FD	-7.24E-04	4.62E-04	-1.27E-04	1.25E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.138	0.141	-1.84E-02	1.23E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-163. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

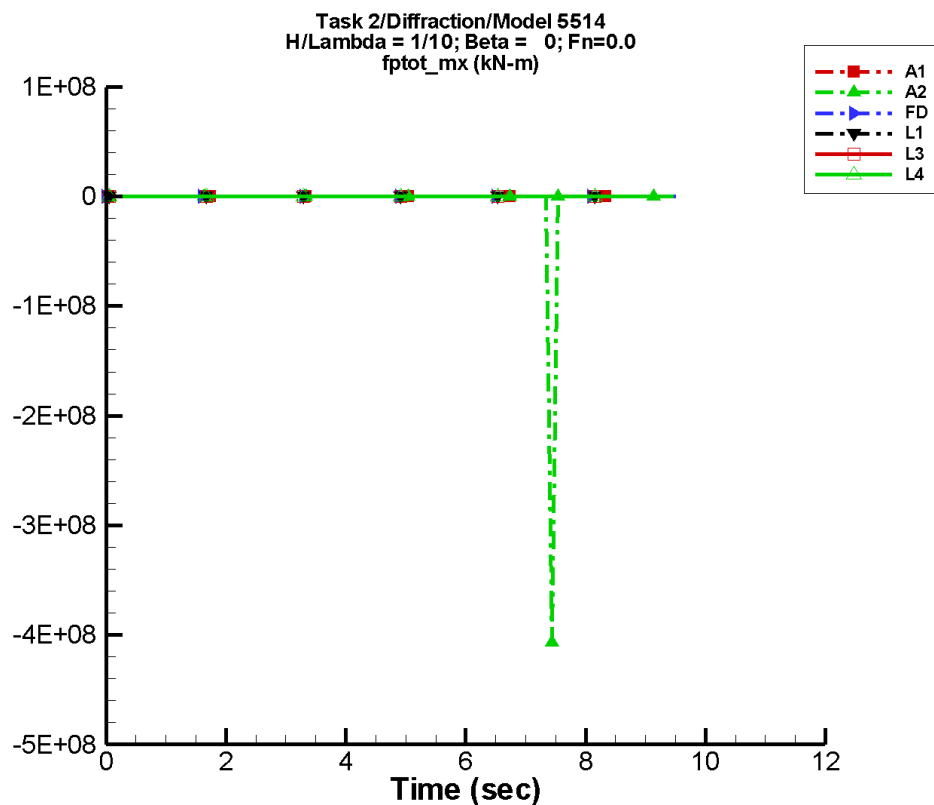
Table H-325. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-5.25E-02	20.4	168	8.18E-02	47
A2	448.	826.	146	779.	-148
FD	1.58E-05	6.61E-05	-132	4.12E-05	-132
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-9.32E-05	2.06E-03	156	3.85E-03	-97

Table H-326. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-19.9	20.2	-19.8	20.1
A2	-560.	3.95E+04	-466.	5.32E+03
FD	-8.44E-04	6.28E-04	-2.23E-04	1.84E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.966	0.988	-2.47E-02	1.95E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-164. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

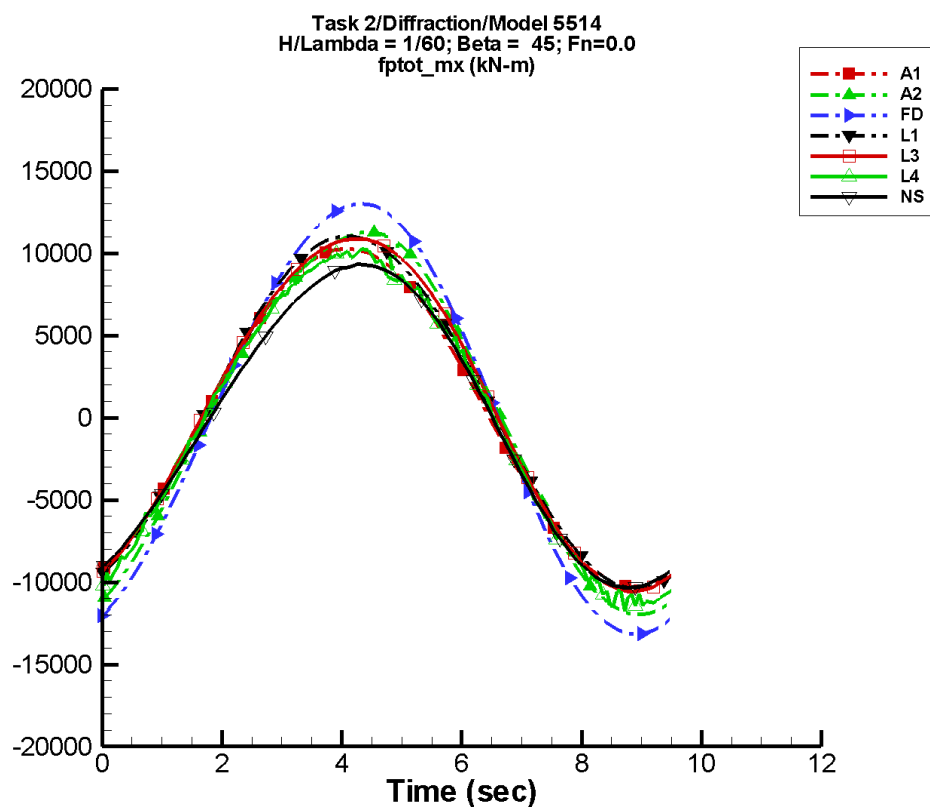
Table H-327. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-7.89E-02	30.6	168	0.123	47
A2	-4.62E+06	8.43E+06	-20	7.90E+06	61
FD	-1.46E-05	5.36E-05	-79	1.31E-04	29
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-328. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-30.0	30.4	-29.8	30.1
A2	-4.06E+08	2.47E+04	-5.42E+07	4.64E+06
FD	-7.94E-04	8.43E-04	-2.80E-04	2.63E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-165. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–329. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

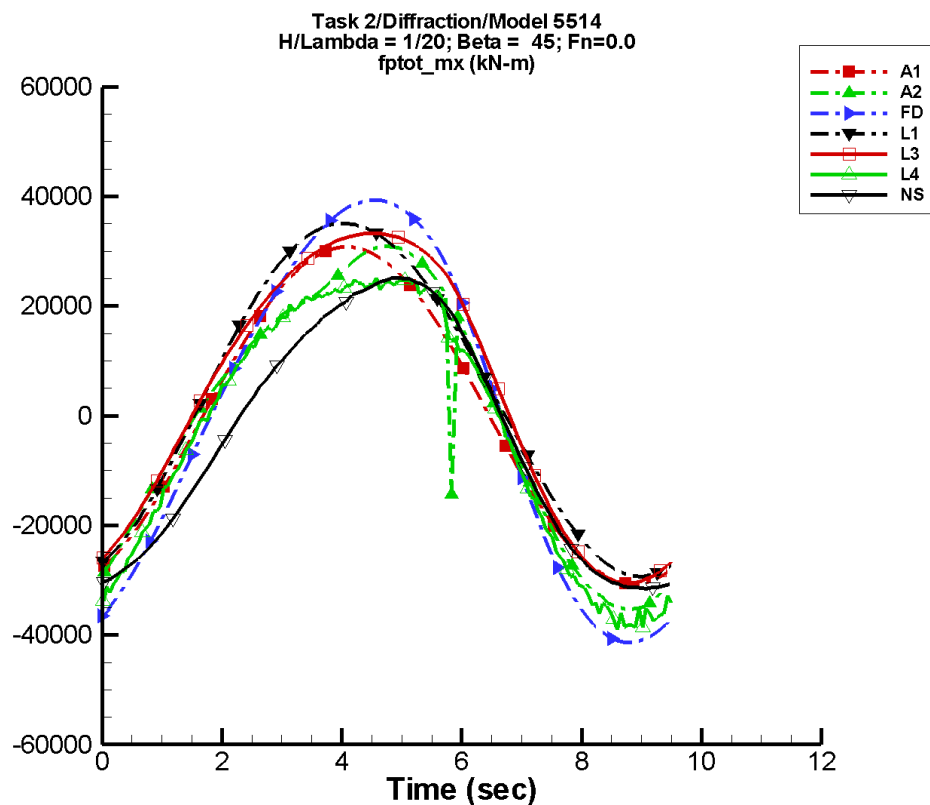
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.36	1.03E+04	-69	13.7	-137
A2	-9.40	1.15E+04	-74	554.	-27
FD	-3.26	1.31E+04	-75	381.	15
L1	407.	1.07E+04	-69	142.	-100
L3	404.	1.08E+04	-70	355.	-3
L4	-219.	1.06E+04	-69	478.	-38
NF	—	—	—	—	—
NS	-366.	9.79E+03	-67	547.	27

Table H–330. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.03E+04	1.03E+04	-1.02E+04	1.02E+04
A2	-1.20E+04	1.13E+04	-1.18E+04	1.11E+04
FD	-1.32E+04	1.30E+04	-1.30E+04	1.30E+04
L1	-1.04E+04	1.10E+04	-1.04E+04	1.10E+04
L3	-1.06E+04	1.09E+04	-1.05E+04	1.08E+04
L4	-1.18E+04	1.03E+04	-1.12E+04	1.00E+04
NF	—	—	—	—
NS	-1.04E+04	9.34E+03	-1.02E+04	9.20E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-166. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

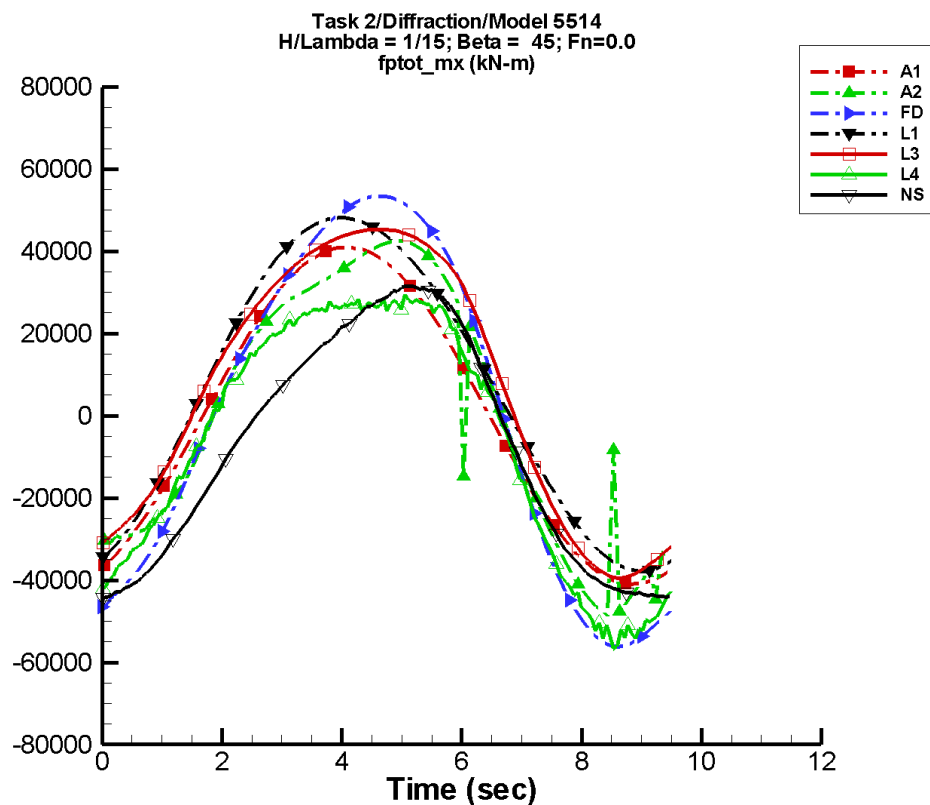
Table H-331. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	16.0	3.09E+04	-69	41.1	-137
A2	-318.	3.12E+04	-71	4.72E+03	-4
FD	-22.4	4.05E+04	-76	3.65E+03	10
L1	3.66E+03	3.22E+04	-69	1.24E+03	-100
L3	3.62E+03	3.24E+04	-72	3.44E+03	-7
L4	-2.84E+03	3.14E+04	-71	4.50E+03	-24
NF	—	—	—	—	—
NS	-3.94E+03	2.87E+04	-80	2.66E+03	25

Table H-332. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.08E+04	3.08E+04	-3.04E+04	3.04E+04
A2	-3.53E+04	3.09E+04	-3.48E+04	3.07E+04
FD	-4.14E+04	3.94E+04	-4.09E+04	3.90E+04
L1	-2.93E+04	3.51E+04	-2.92E+04	3.50E+04
L3	-3.05E+04	3.33E+04	-3.04E+04	3.32E+04
L4	-3.90E+04	2.52E+04	-3.76E+04	2.43E+04
NF	—	—	—	—
NS	-3.16E+04	2.51E+04	-3.13E+04	2.47E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-167. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

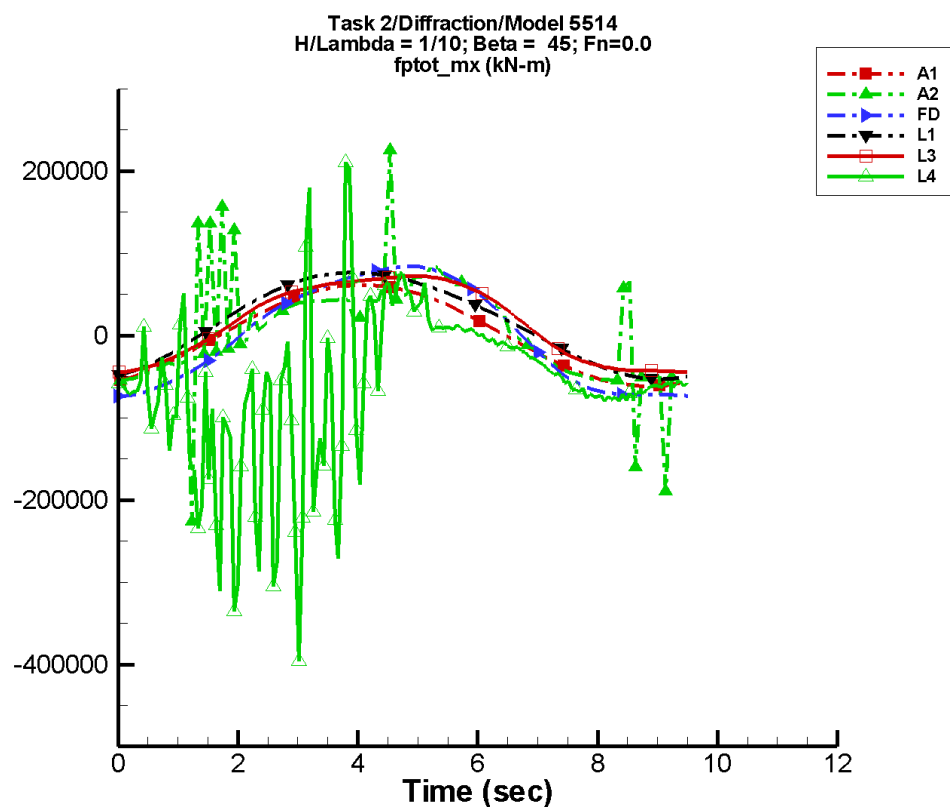
Table H-333. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	21.3	4.11E+04	-69	54.7	-137
A2	-392.	4.22E+04	-76	4.49E+03	40
FD	-63.1	5.50E+04	-77	5.58E+03	15
L1	6.51E+03	4.29E+04	-69	2.20E+03	-100
L3	6.38E+03	4.32E+04	-74	4.80E+03	-6
L4	-6.36E+03	4.09E+04	-72	6.71E+03	-19
NF	—	—	—	—	—
NS	-8.59E+03	3.81E+04	-84	4.25E+03	19

Table H-334. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.09E+04	4.10E+04	-4.05E+04	4.05E+04
A2	-4.88E+04	4.26E+04	-4.16E+04	4.21E+04
FD	-5.63E+04	5.34E+04	-5.53E+04	5.29E+04
L1	-3.79E+04	4.81E+04	-3.77E+04	4.80E+04
L3	-3.95E+04	4.54E+04	-3.92E+04	4.53E+04
L4	-5.68E+04	2.94E+04	-5.38E+04	2.76E+04
NF	—	—	—	—
NS	-4.42E+04	3.15E+04	-4.41E+04	3.10E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-168. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

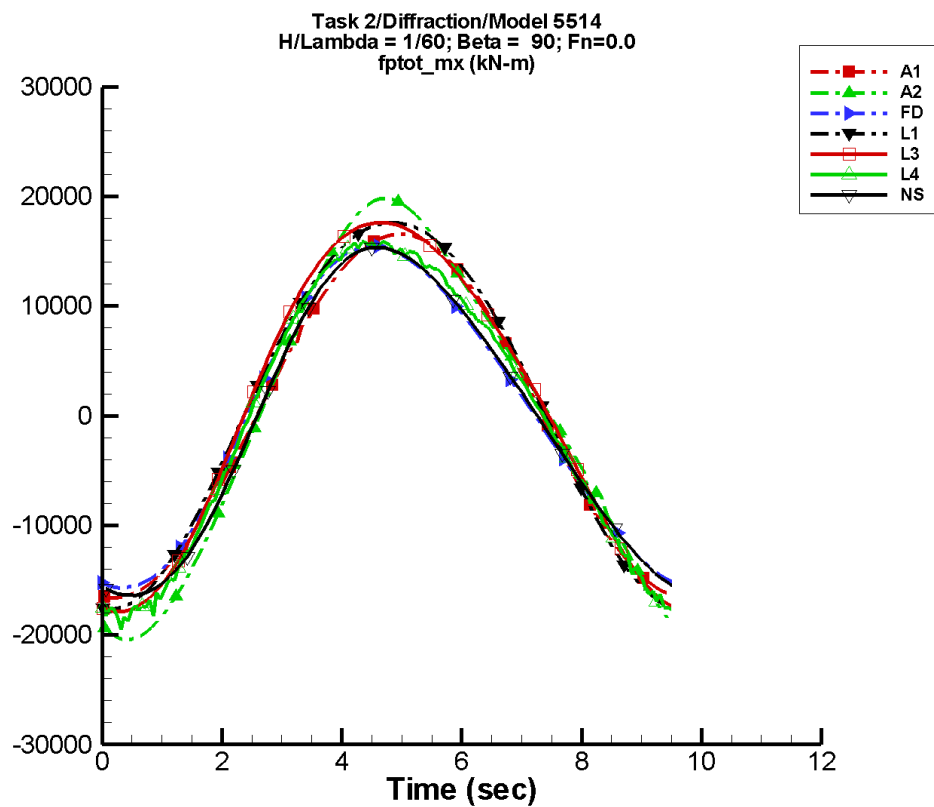
Table H-335. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	32.0	6.17E+04	-69	82.1	-137
A2	6.45E+03	6.28E+04	-73	1.83E+04	0
FD	-337.	8.26E+04	-82	5.55E+03	40
L1	1.46E+04	6.43E+04	-69	4.93E+03	-100
L3	1.43E+04	6.25E+04	-79	3.31E+03	-19
L4	-5.96E+04	6.77E+04	-143	5.12E+04	74
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-336. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.15E+04	6.15E+04	-6.08E+04	6.09E+04
A2	-2.26E+05	2.26E+05	-7.22E+04	7.71E+04
FD	-7.35E+04	8.42E+04	-7.33E+04	8.28E+04
L1	-5.32E+04	7.64E+04	-5.28E+04	7.62E+04
L3	-4.45E+04	7.22E+04	-4.44E+04	7.19E+04
L4	-3.96E+05	2.11E+05	-2.53E+05	5.83E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-169. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-337. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

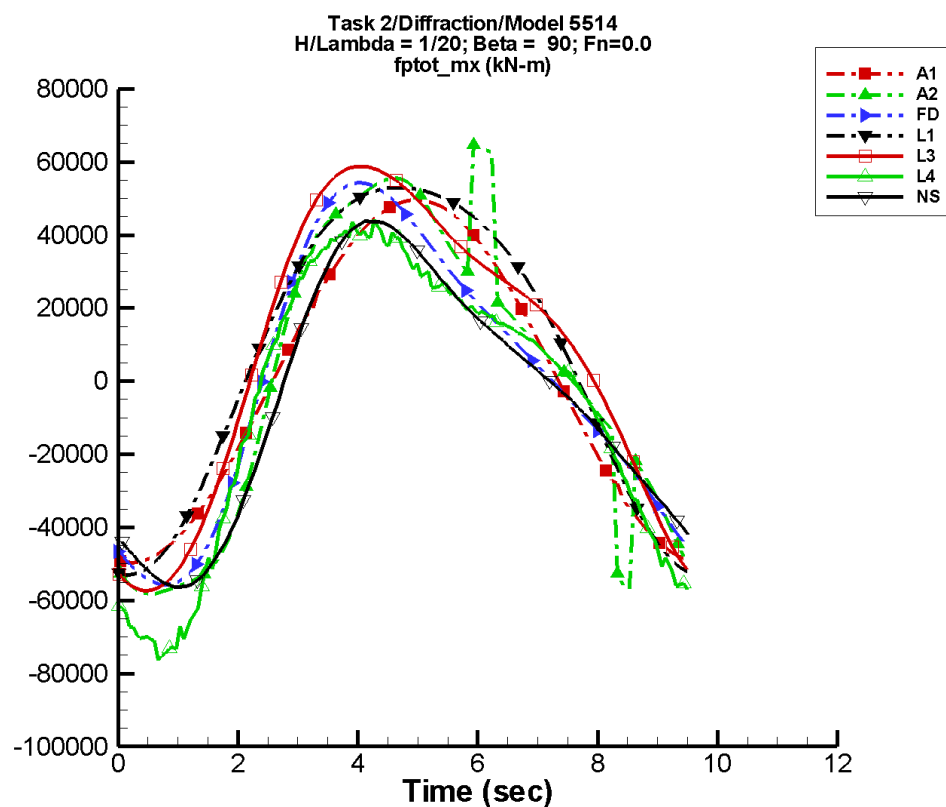
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	19.5	1.66E+04	-102	27.0	-161
A2	4.15	1.89E+04	-104	1.98E+03	166
FD	2.19	1.53E+04	-98	1.64E+03	169
L1	798.	1.76E+04	-98	825.	-118
L3	799.	1.76E+04	-98	1.59E+03	-158
L4	-247.	1.68E+04	-98	1.78E+03	-162
NF	—	—	—	—	—
NS	-537.	1.56E+04	-96	1.73E+03	167

Table H-338. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.66E+04	1.66E+04	-1.66E+04	1.64E+04
A2	-2.04E+04	1.98E+04	-2.00E+04	1.95E+04
FD	-1.57E+04	1.55E+04	-1.58E+04	1.53E+04
L1	-1.76E+04	1.76E+04	-1.76E+04	1.76E+04
L3	-1.79E+04	1.76E+04	-1.78E+04	1.76E+04
L4	-1.95E+04	1.60E+04	-1.82E+04	1.57E+04
NF	—	—	—	—
NS	-1.64E+04	1.53E+04	-1.62E+04	1.52E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-170. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

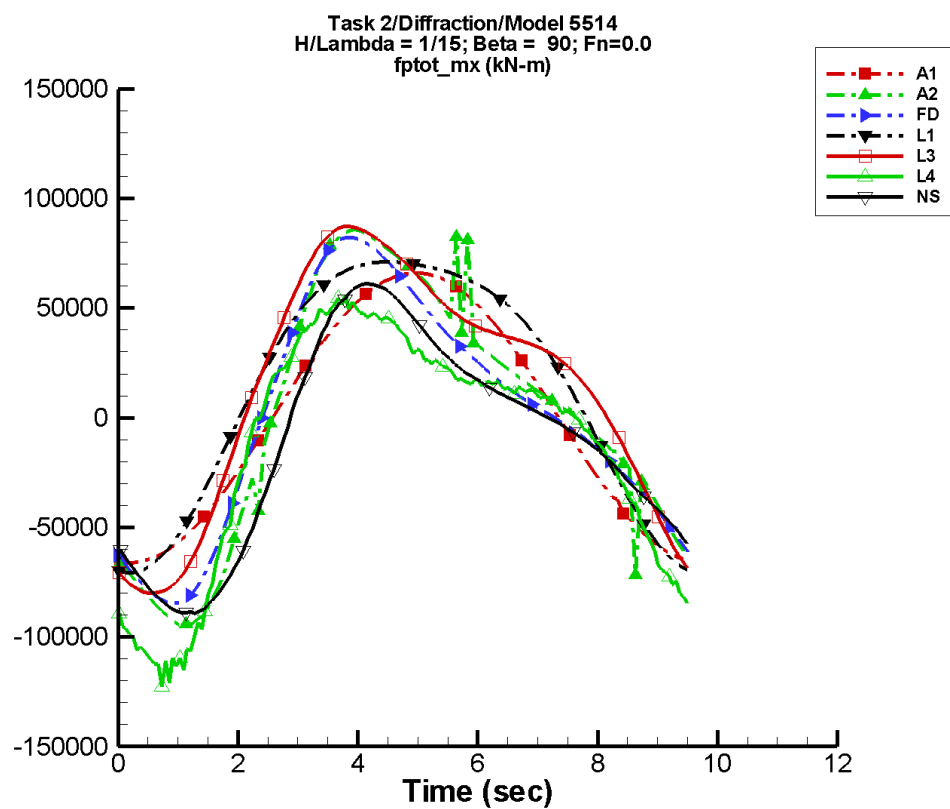
Table H-339. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	58.2	4.96E+04	-102	80.9	-161
A2	-106.	5.71E+04	-105	9.89E+03	166
FD	83.7	4.87E+04	-97	1.57E+04	168
L1	7.12E+03	5.28E+04	-98	7.39E+03	-119
L3	7.12E+03	5.28E+04	-98	1.54E+04	-161
L4	-6.04E+03	5.06E+04	-101	1.76E+04	-158
NF	—	—	—	—	—
NS	-5.60E+03	4.37E+04	-102	1.39E+04	162

Table H-340. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.96E+04	4.96E+04	-4.97E+04	4.90E+04
A2	-1.33E+05	6.47E+04	-6.67E+04	5.50E+04
FD	-5.58E+04	5.43E+04	-5.48E+04	5.47E+04
L1	-5.30E+04	5.30E+04	-5.29E+04	5.29E+04
L3	-5.74E+04	5.88E+04	-5.70E+04	5.85E+04
L4	-7.63E+04	4.45E+04	-7.32E+04	4.14E+04
NF	—	—	—	—
NS	-5.64E+04	4.38E+04	-5.55E+04	4.29E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-171. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

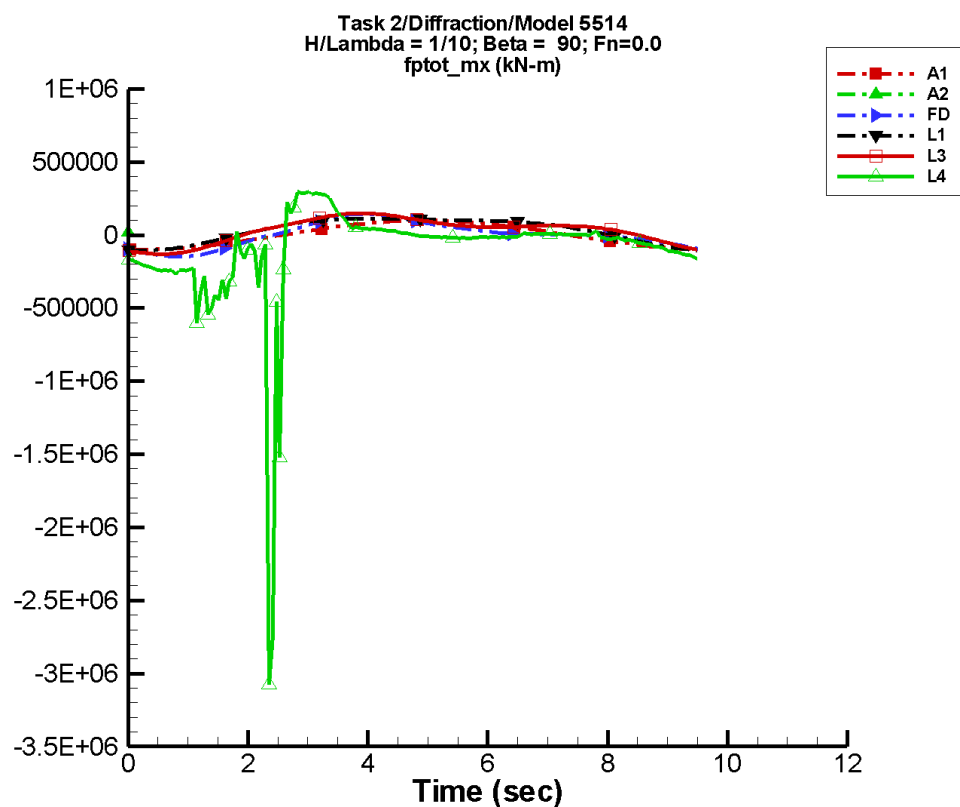
Table H-341. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	77.6	6.60E+04	-102	108.	-161
A2	232.	7.60E+04	-105	2.79E+04	158
FD	166.	6.78E+04	-97	2.78E+04	168
L1	1.26E+04	7.05E+04	-98	1.31E+04	-119
L3	1.26E+04	7.08E+04	-98	2.72E+04	-160
L4	-1.36E+04	6.79E+04	-101	3.14E+04	-156
NF	—	—	—	—	—
NS	-1.20E+04	6.07E+04	-106	2.52E+04	160

Table H-342. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.61E+04	6.60E+04	-6.61E+04	6.53E+04
A2	-9.48E+04	8.60E+04	-9.22E+04	8.34E+04
FD	-8.47E+04	8.24E+04	-8.25E+04	8.15E+04
L1	-7.08E+04	7.11E+04	-7.05E+04	7.10E+04
L3	-8.02E+04	8.71E+04	-7.96E+04	8.66E+04
L4	-1.23E+05	5.60E+04	-1.14E+05	5.23E+04
NF	—	—	—	—
NS	-8.91E+04	6.11E+04	-8.83E+04	6.01E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-172. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

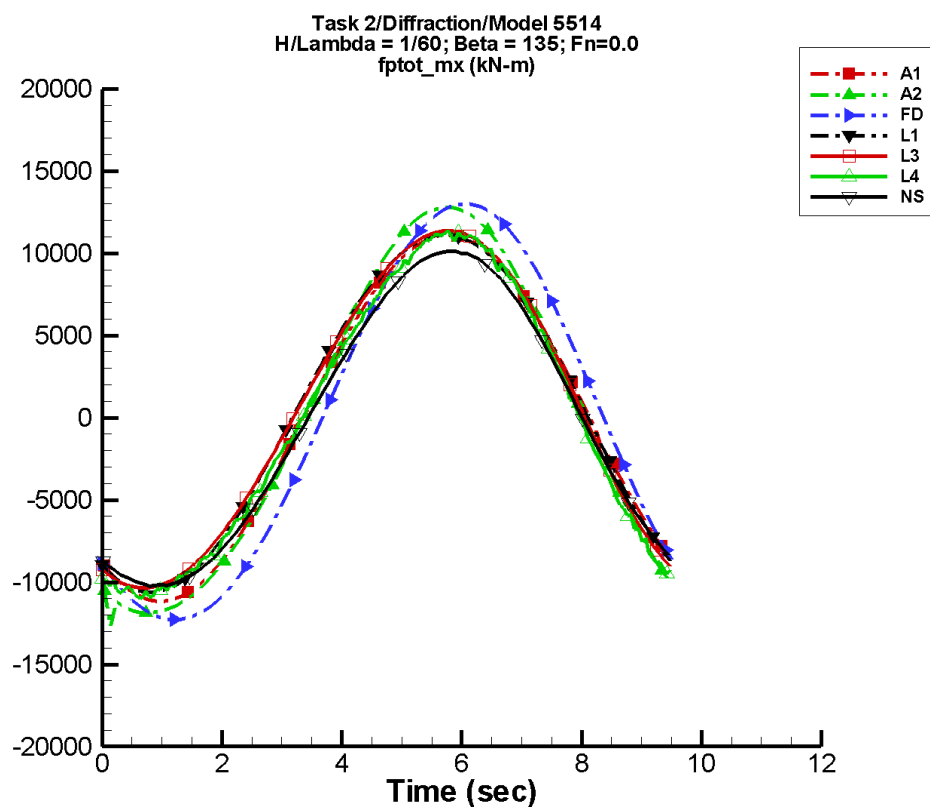
Table H-343. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	116.	9.91E+04	-102	162.	-161
A2	-6.70E+03	6.08E+04	-73	6.38E+04	-3
FD	26.6	1.05E+05	-97	5.42E+04	169
L1	2.84E+04	1.06E+05	-98	2.95E+04	-119
L3	2.82E+04	1.03E+05	-98	5.50E+04	-157
L4	-9.50E+04	1.79E+05	-140	1.44E+05	150
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-344. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.92E+04	9.92E+04	-9.94E+04	9.81E+04
A2	1.58E+04	2.02E+04	1.58E+04	2.02E+04
FD	-1.48E+05	1.45E+05	-1.43E+05	1.44E+05
L1	-1.07E+05	1.12E+05	-1.06E+05	1.11E+05
L3	-1.32E+05	1.49E+05	-1.30E+05	1.48E+05
L4	-3.08E+06	3.05E+05	-1.05E+06	3.43E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-173. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-345. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

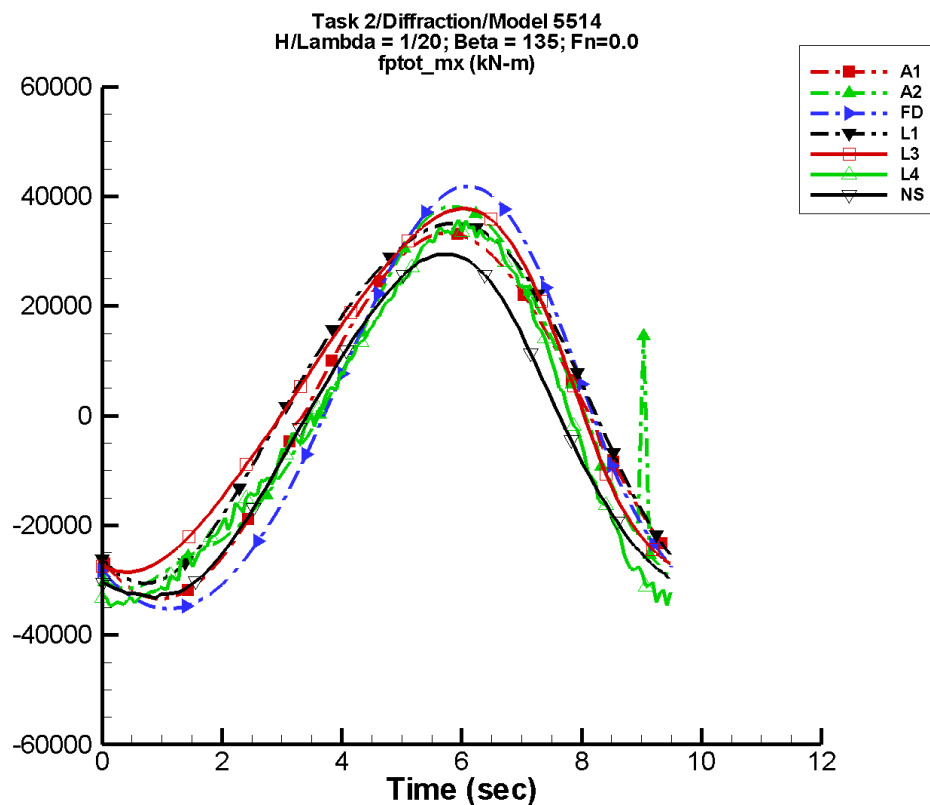
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	11.9	1.11E+04	-132	18.5	-164
A2	-1.51	1.23E+04	-130	544.	-23
FD	1.59	1.27E+04	-143	383.	-38
L1	417.	1.08E+04	-127	291.	-110
L3	421.	1.09E+04	-126	537.	-63
L4	-126.	1.08E+04	-127	805.	-49
NF	—	—	—	—	—
NS	-361.	1.02E+04	-127	393.	-22

Table H-346. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.11E+04	1.11E+04	-1.10E+04	1.10E+04
A2	-1.27E+04	1.28E+04	-1.18E+04	1.27E+04
FD	-1.23E+04	1.30E+04	-1.22E+04	1.28E+04
L1	-1.06E+04	1.11E+04	-1.06E+04	1.11E+04
L3	-1.04E+04	1.14E+04	-1.03E+04	1.13E+04
L4	-1.10E+04	1.14E+04	-1.07E+04	1.11E+04
NF	—	—	—	—
NS	-1.02E+04	1.01E+04	-1.01E+04	1.00E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-174. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

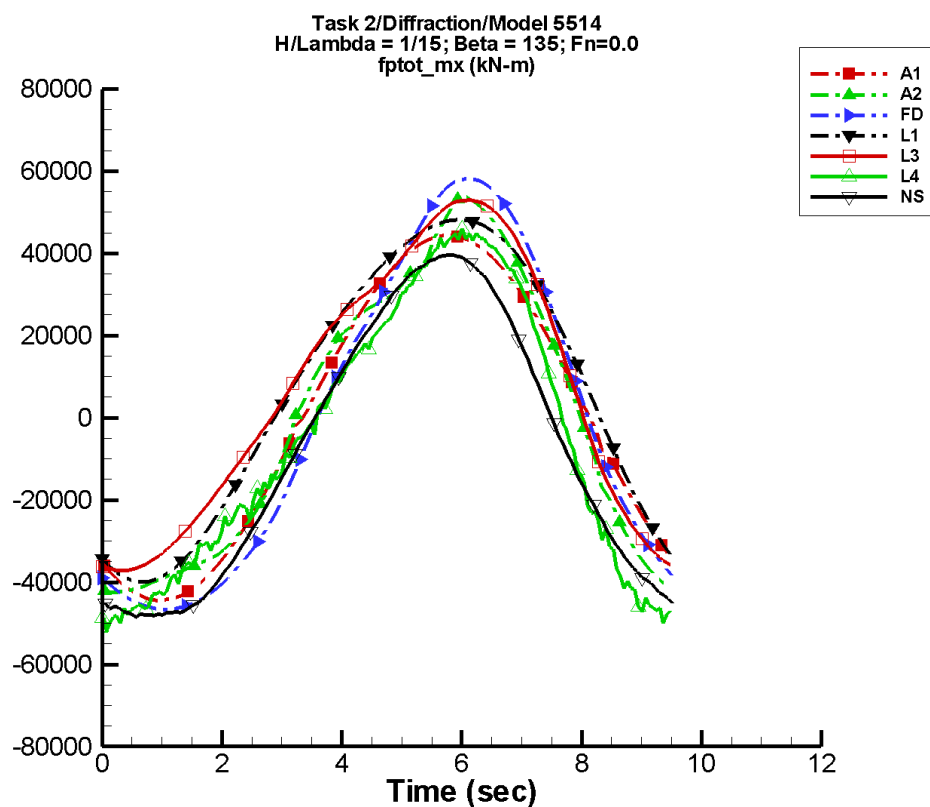
Table H-347. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	35.7	3.32E+04	-132	55.4	-164
A2	391.	3.35E+04	-133	4.84E+03	-32
FD	42.0	3.86E+04	-141	3.64E+03	-32
L1	3.75E+03	3.25E+04	-127	2.61E+03	-110
L3	3.81E+03	3.25E+04	-124	4.70E+03	-59
L4	-2.28E+03	3.28E+04	-125	6.43E+03	-46
NF	—	—	—	—	—
NS	-3.88E+03	3.13E+04	-120	2.19E+03	7

Table H-348. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.34E+04	3.33E+04	-3.30E+04	3.29E+04
A2	-3.15E+04	3.81E+04	-3.13E+04	3.77E+04
FD	-3.52E+04	4.18E+04	-3.50E+04	4.13E+04
L1	-3.06E+04	3.51E+04	-3.04E+04	3.50E+04
L3	-2.85E+04	3.78E+04	-2.84E+04	3.76E+04
L4	-3.47E+04	3.57E+04	-3.40E+04	3.43E+04
NF	—	—	—	—
NS	-3.33E+04	2.95E+04	-3.27E+04	2.91E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-175. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

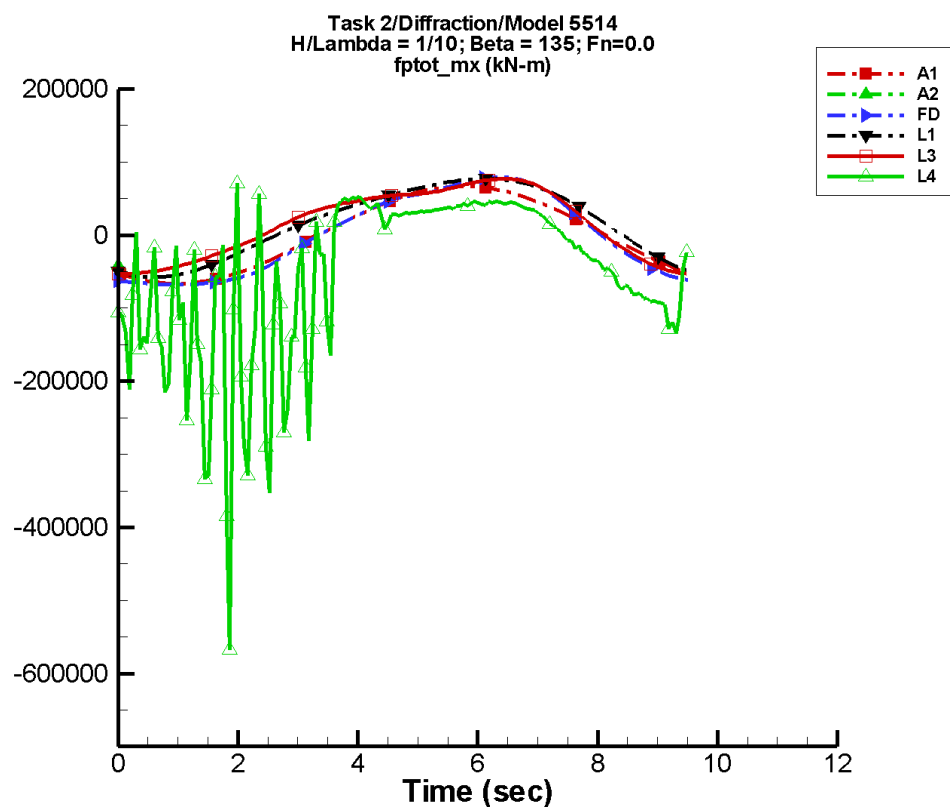
Table H-349. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	47.5	4.42E+04	-132	73.7	-164
A2	235.	4.55E+04	-129	6.04E+03	-50
FD	172.	5.19E+04	-139	5.51E+03	-35
L1	6.67E+03	4.34E+04	-127	4.64E+03	-110
L3	6.83E+03	4.32E+04	-123	7.45E+03	-65
L4	-5.39E+03	4.39E+04	-123	1.00E+04	-44
NF	—	—	—	—	—
NS	-8.53E+03	4.38E+04	-120	4.03E+03	9

Table H-350. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.44E+04	4.44E+04	-4.39E+04	4.39E+04
A2	-4.25E+04	5.41E+04	-4.23E+04	5.16E+04
FD	-4.66E+04	5.82E+04	-4.63E+04	5.73E+04
L1	-4.00E+04	4.81E+04	-3.98E+04	4.80E+04
L3	-3.72E+04	5.29E+04	-3.70E+04	5.27E+04
L4	-5.21E+04	4.61E+04	-5.10E+04	4.42E+04
NF	—	—	—	—
NS	-4.84E+04	3.96E+04	-4.80E+04	3.91E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-176. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

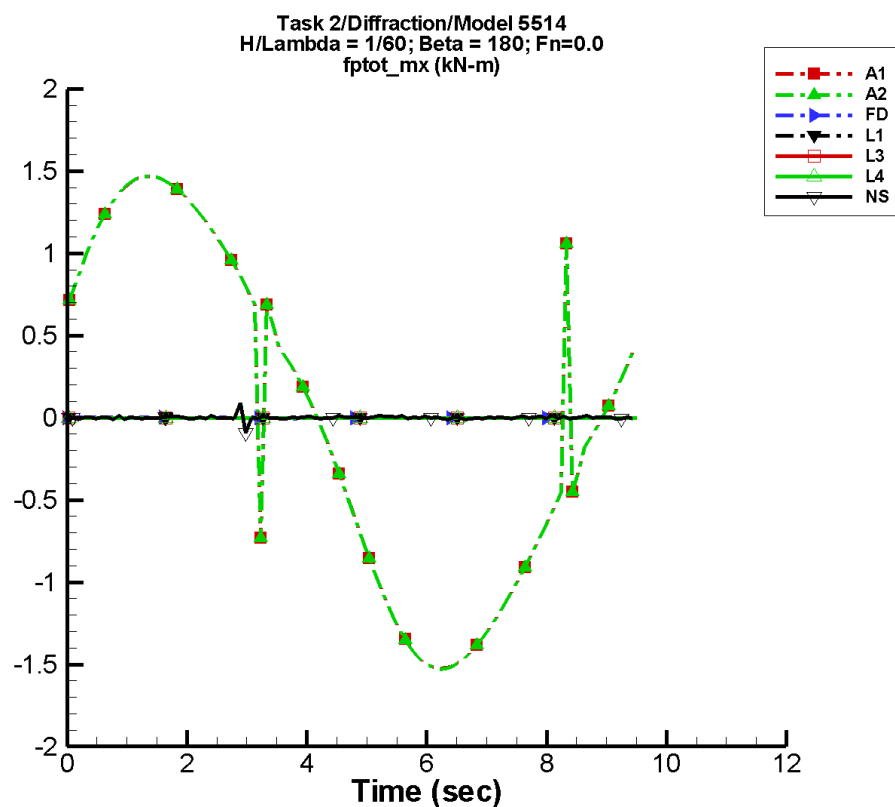
Table H-351. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	71.3	6.64E+04	-132	111.	-164
A2	2.93E+05	1.14E+06	-136	6.20E+05	56
FD	436.	7.47E+04	-134	5.45E+03	-60
L1	1.50E+04	6.51E+04	-127	1.04E+04	-110
L3	1.54E+04	6.14E+04	-118	1.32E+04	-91
L4	-5.24E+04	1.12E+05	-138	3.10E+04	98
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-352. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.67E+04	6.66E+04	-6.60E+04	6.59E+04
A2	-4.19E+04	-3.66E+04	-4.19E+04	-3.66E+04
FD	-6.81E+04	7.91E+04	-6.76E+04	7.78E+04
L1	-5.78E+04	7.69E+04	-5.74E+04	7.66E+04
L3	-5.35E+04	7.69E+04	-5.37E+04	7.64E+04
L4	-5.67E+05	7.08E+04	-2.02E+05	4.88E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-177. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-353. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

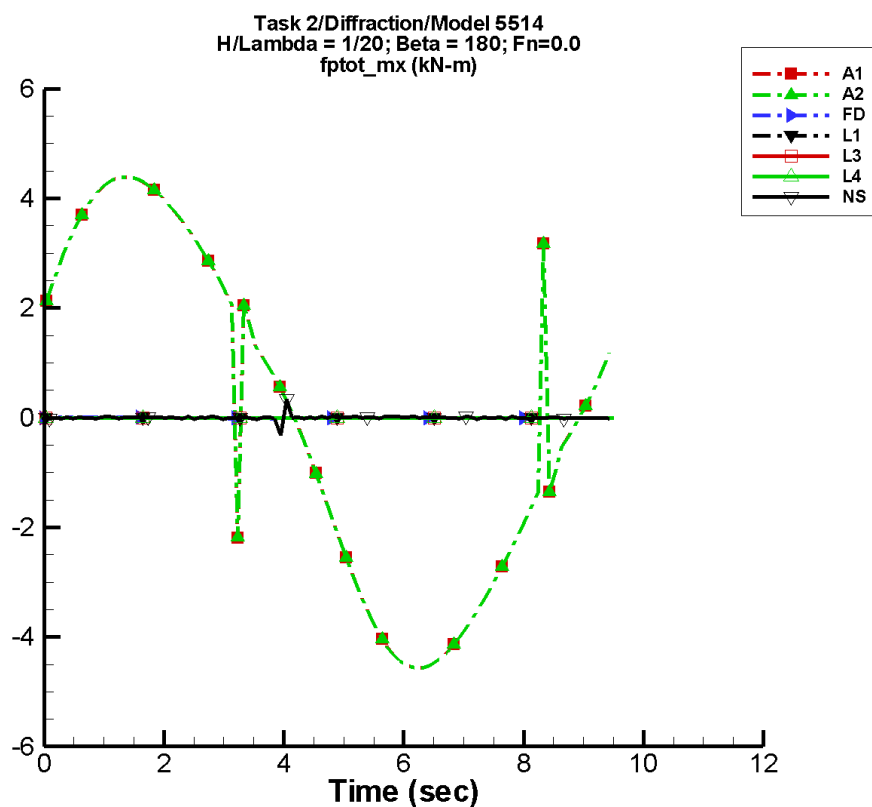
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.71E-03	1.42	24	8.48E-03	59
A2	-3.68E-03	1.42	24	8.44E-03	59
FD	6.02E-05	1.14E-03	52	3.04E-04	20
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.64E-04	9.32E-04	-85	4.86E-04	-120

Table H-354. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.53	1.55	-1.50	1.54
A2	-1.53	1.55	-1.51	1.54
FD	-5.76E-03	8.37E-03	-1.03E-03	2.12E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.34E-02	8.86E-02	-5.37E-03	4.89E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-178. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

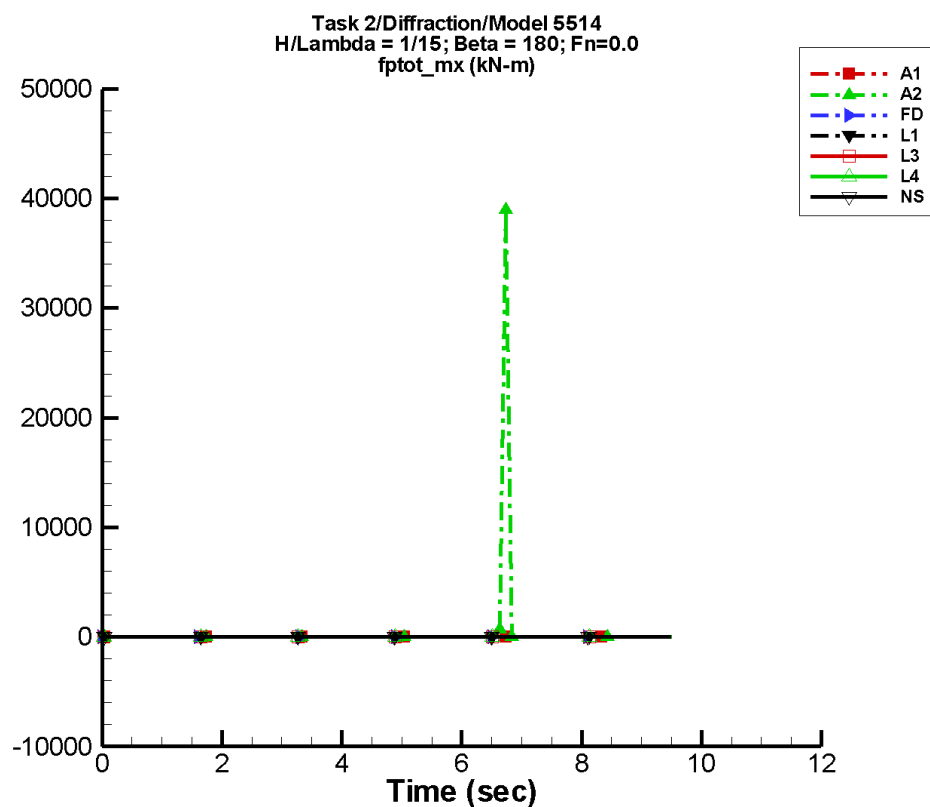
Table H-355. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.11E-02	4.25	24	2.54E-02	59
A2	-182.	386.	-101	446.	-118
FD	5.84E-05	3.65E-03	53	8.61E-04	7
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-8.67E-05	4.93E-03	-115	5.84E-03	12

Table H-356. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.57	4.65	-4.50	4.59
A2	-3.09E+04	4.65	-4.12E+03	357.
FD	-1.62E-02	2.47E-02	-4.46E-03	6.39E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.327	0.346	-1.55E-02	1.12E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-179. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

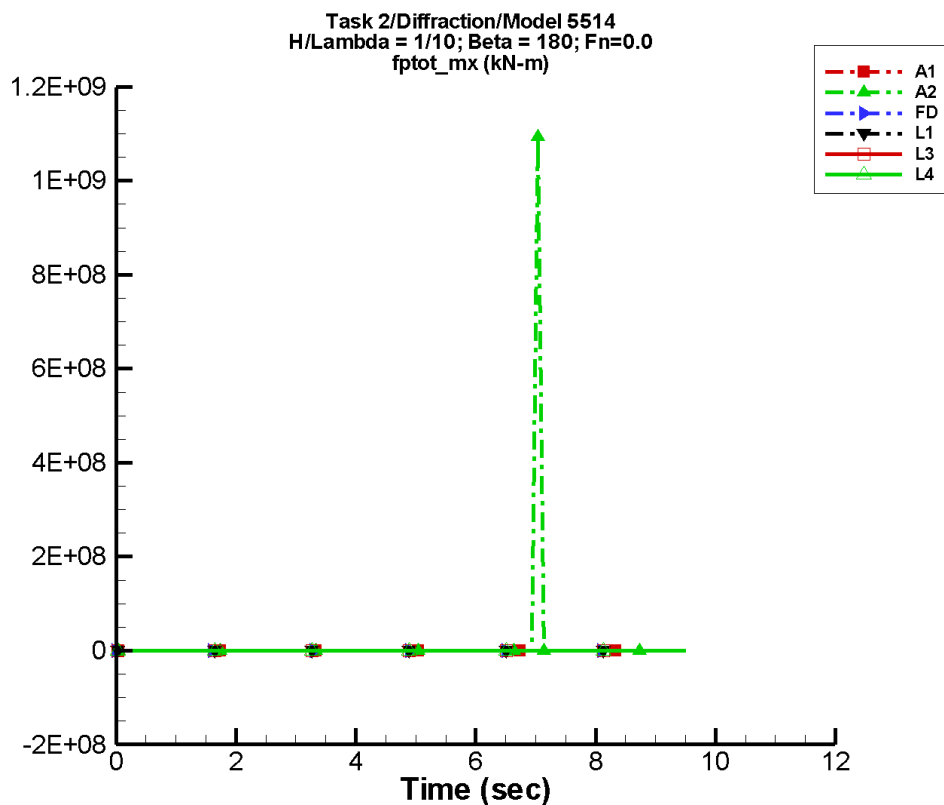
Table H-357. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.48E-02	5.66	24	3.38E-02	59
A2	421.	845.	-172	766.	-66
FD	8.41E-05	4.94E-03	53	1.05E-03	0
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.14E-03	3.57E-03	-93	8.87E-03	-113

Table H-358. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.08	6.19	-5.99	6.11
A2	-6.08	3.90E+04	-455.	5.28E+03
FD	-2.21E-02	3.27E-02	-6.60E-03	8.67E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.378	0.355	-1.96E-02	2.62E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-180. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

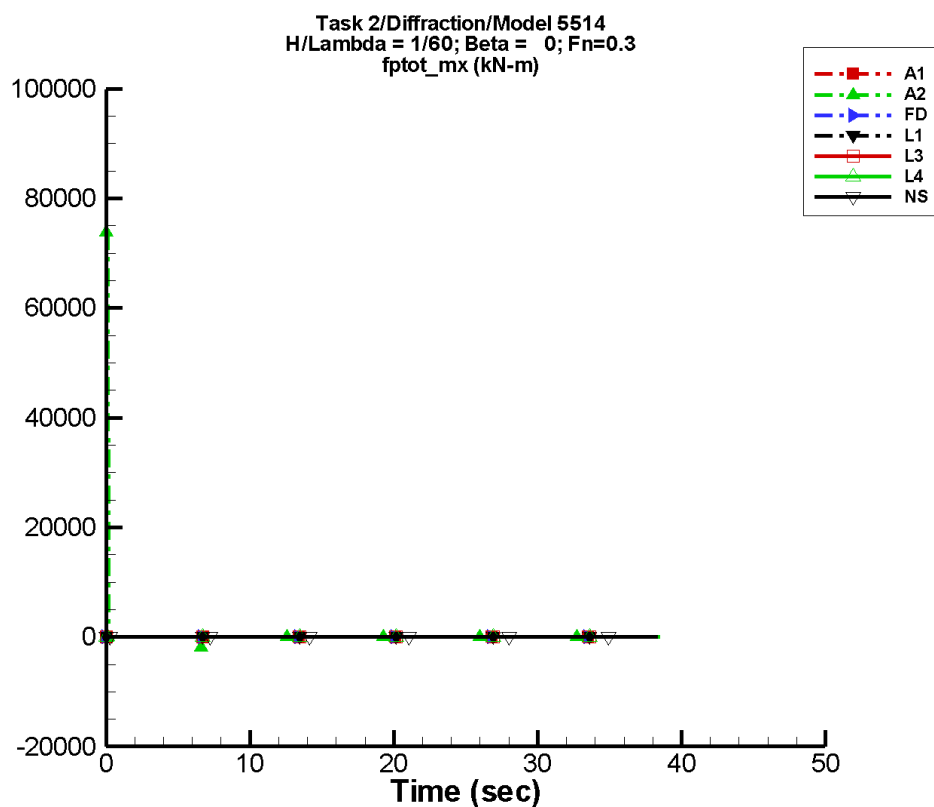
Table H–359. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.22E-02	8.50	24	5.08E-02	59
A2	1.20E+07	2.30E+07	176	2.11E+07	-89
FD	3.18E-04	7.23E-03	50	1.43E-03	-3
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–360. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.13	9.29	-9.00	9.18
A2	-3.03E+05	1.09E+09	-1.25E+07	1.46E+08
FD	-3.72E-02	4.89E-02	-8.65E-03	1.28E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-181. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-361. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

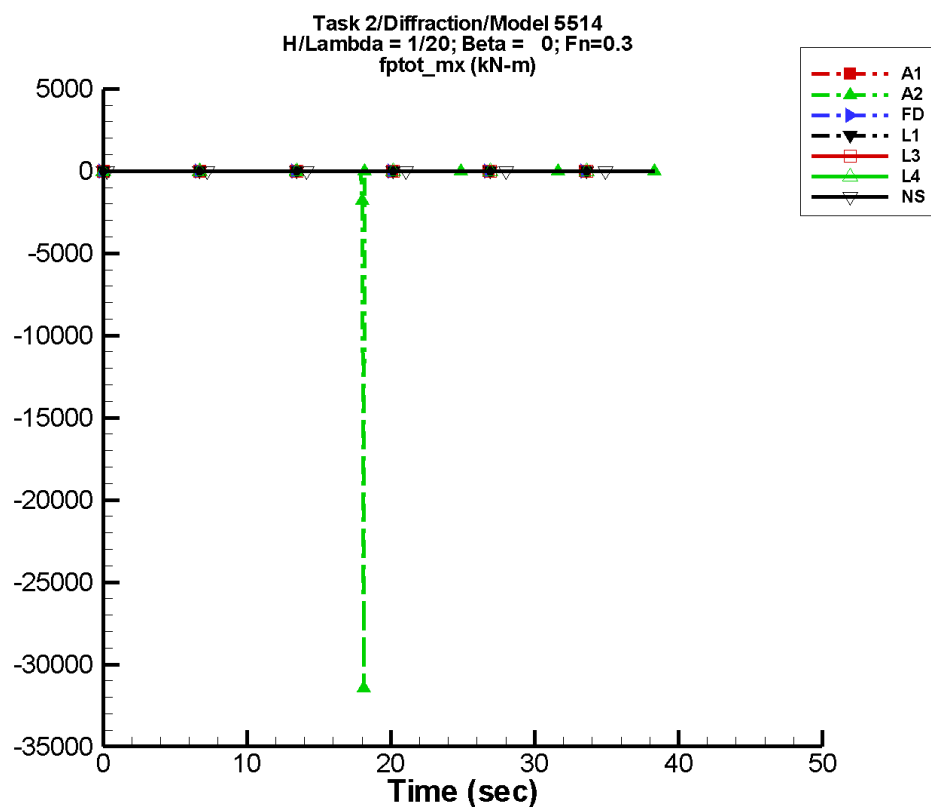
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.91E-03	0.507	-144	5.21E-02	-179
A2	-4.71	10.7	-151	12.3	151
FD	1.13E-05	9.52E-06	-44	5.40E-06	148
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	7.06E-04	1.51E-03	159	2.23E-03	-121

Table H-362. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-0.903	0.765	-0.695	0.580
A2	-1.86E+03	0.765	-248.	20.7
FD	-4.97E-04	6.45E-04	-2.00E-04	2.66E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.30E-02	1.40E-02	-8.66E-03	5.87E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-182. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

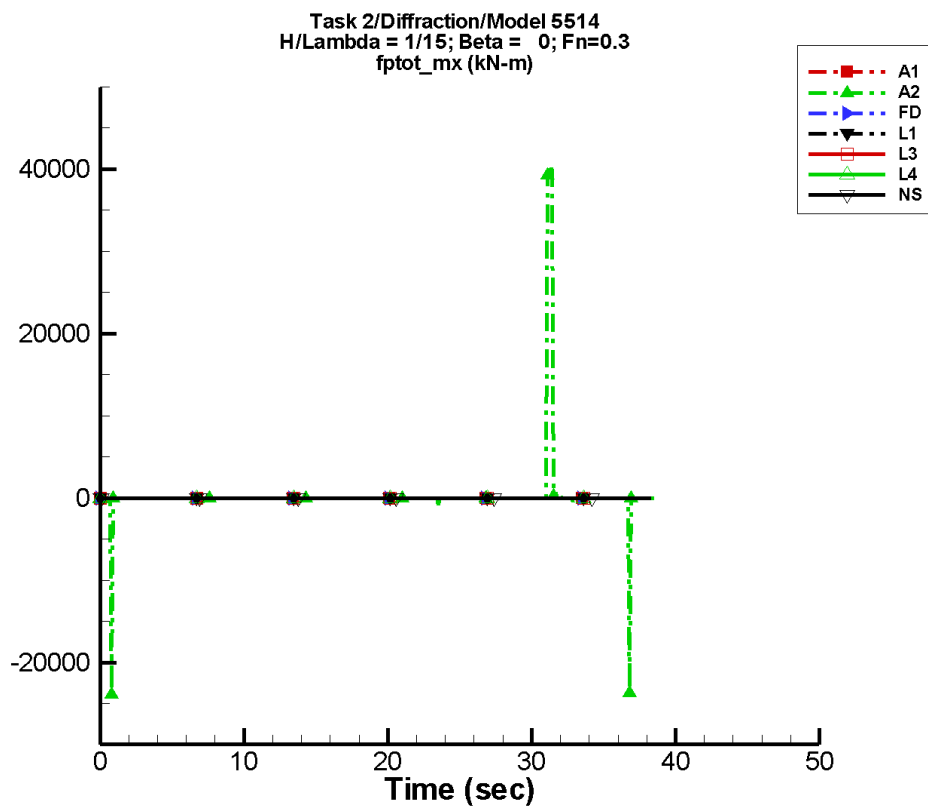
Table H-363. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.77E-02	1.52	-144	0.156	-179
A2	-91.5	174.	111	156.	-60
FD	1.52E-05	2.57E-05	8	4.40E-07	50
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.51E-03	4.41E-03	65	6.02E-03	160

Table H-364. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.70	2.29	-2.08	1.73
A2	-3.14E+04	2.29	-4.42E+03	378.
FD	-6.60E-04	8.03E-04	-2.44E-04	2.72E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.48E-02	5.90E-02	-3.83E-02	5.15E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-183. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

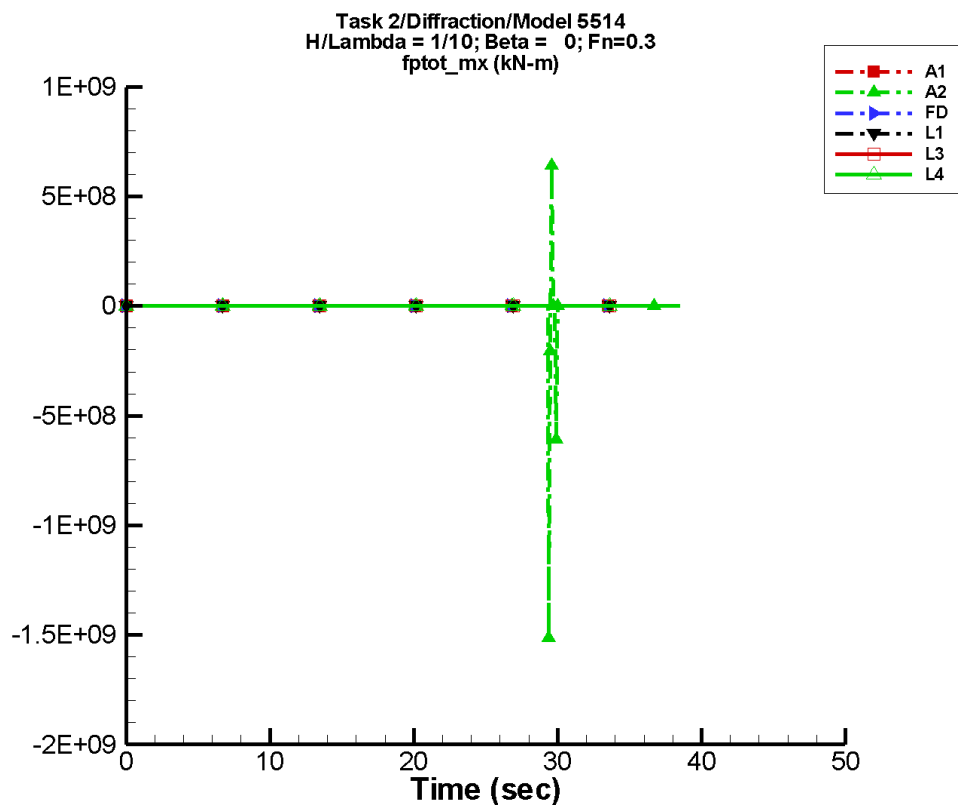
Table H-365. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.35E-02	2.02	-144	0.208	-179
A2	312.	716.	176	934.	-108
FD	5.96E-06	1.22E-05	-65	2.05E-05	-74
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.52E-04	5.89E-03	121	1.10E-02	154

Table H-366. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.60	3.05	-2.77	2.31
A2	-2.39E+04	4.05E+04	-3.24E+03	2.02E+04
FD	-8.94E-04	9.55E-04	-2.10E-04	2.99E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-6.49E-02	5.44E-02	-4.92E-02	4.23E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-184. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

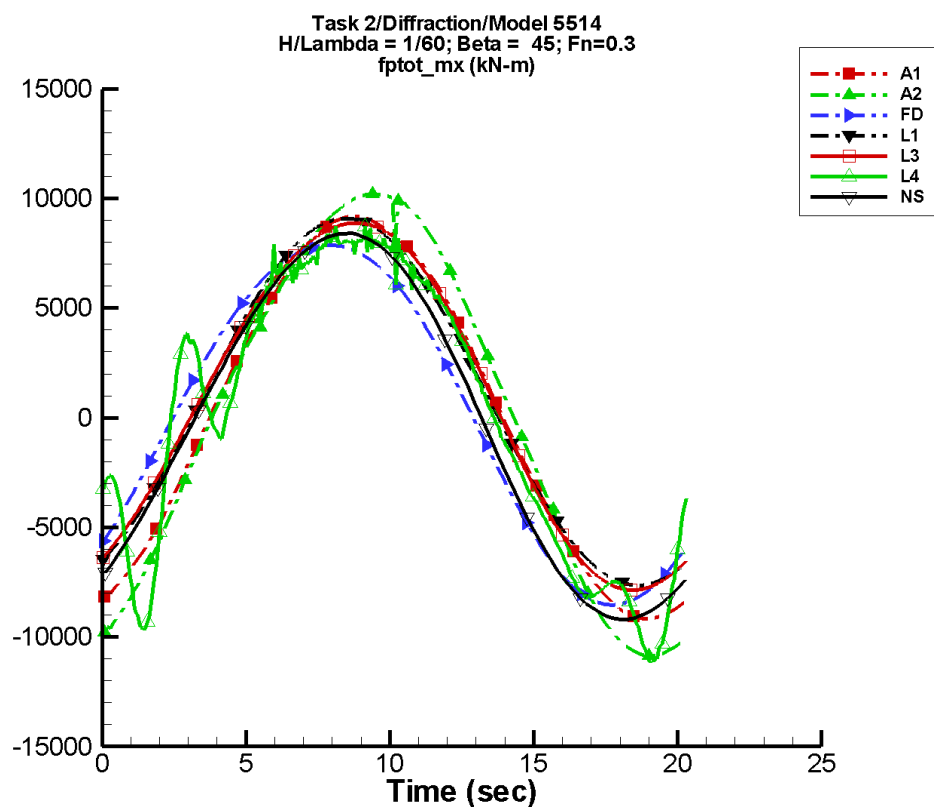
Table H-367. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.54E-02	3.03	-144	0.312	-179
A2	-4.58E+06	8.90E+06	-5	7.80E+06	90
FD	-8.69E-06	3.46E-05	-88	1.05E-05	-84
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-368. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.40	4.58	-4.16	3.47
A2	-1.51E+09	6.41E+08	-1.80E+08	1.30E+07
FD	-9.21E-04	1.19E-03	-2.79E-04	4.20E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-185. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–369. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

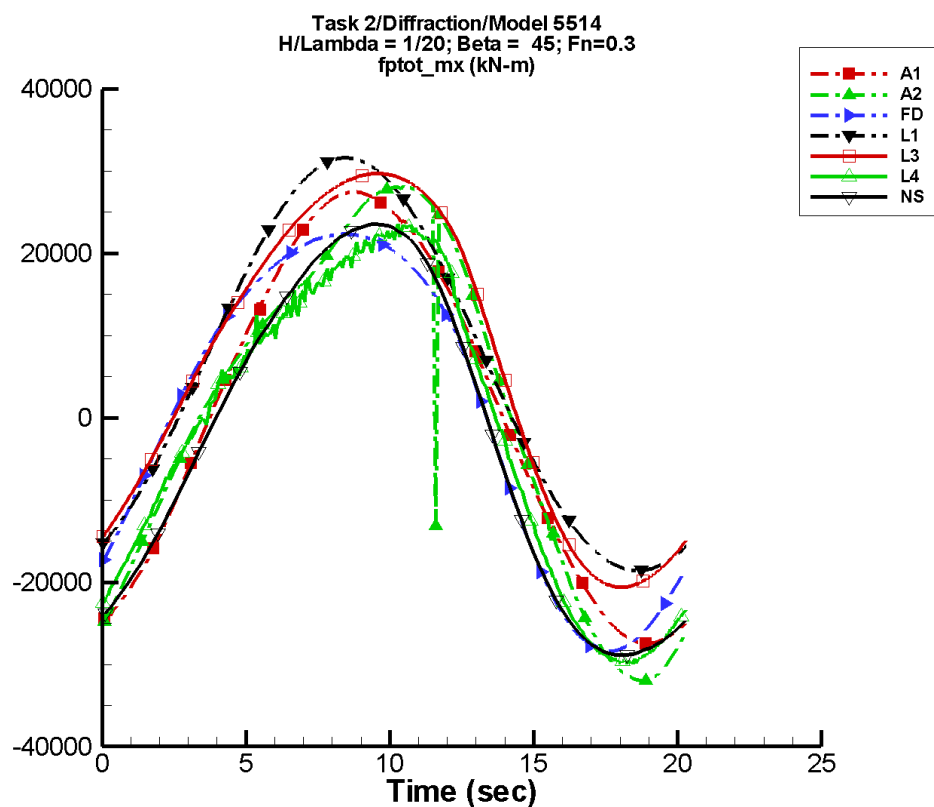
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.39	9.12E+03	-75	14.2	-150
A2	3.04	1.04E+04	-79	548.	-27
FD	1.81	8.24E+03	-58	375.	3
L1	656.	8.36E+03	-63	67.7	136
L3	651.	8.39E+03	-64	372.	27
L4	-3.67	8.47E+03	-64	491.	22
NF	—	—	—	—	—
NS	-360.	8.80E+03	-56	360.	61

Table H–370. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.18E+03	9.18E+03	-9.15E+03	9.15E+03
A2	-1.09E+04	1.02E+04	-1.08E+04	1.02E+04
FD	-8.54E+03	7.86E+03	-8.51E+03	7.85E+03
L1	-7.65E+03	9.09E+03	-7.64E+03	9.08E+03
L3	-7.86E+03	8.88E+03	-7.85E+03	8.88E+03
L4	-1.11E+04	8.74E+03	-1.10E+04	8.16E+03
NF	—	—	—	—
NS	-9.21E+03	8.40E+03	-9.11E+03	8.32E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-186. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

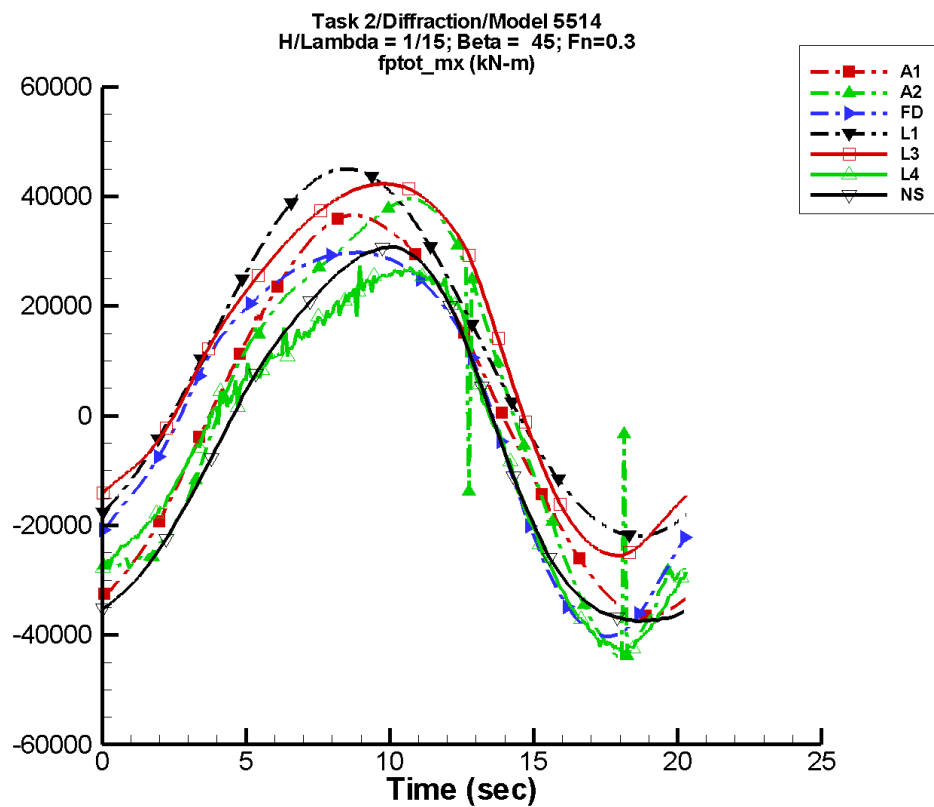
Table H-371. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	19.1	2.73E+04	-75	42.6	-150
A2	-143.	2.77E+04	-77	5.08E+03	-8
FD	-21.4	2.54E+04	-61	3.67E+03	-1
L1	5.90E+03	2.51E+04	-63	603.	137
L3	5.84E+03	2.52E+04	-67	3.37E+03	21
L4	-2.06E+03	2.51E+04	-67	4.95E+03	16
NF	—	—	—	—	—
NS	-3.06E+03	2.65E+04	-64	2.70E+03	57

Table H-372. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.75E+04	2.75E+04	-2.74E+04	2.74E+04
A2	-3.20E+04	2.84E+04	-3.18E+04	2.84E+04
FD	-2.84E+04	2.23E+04	-2.83E+04	2.23E+04
L1	-1.86E+04	3.16E+04	-1.86E+04	3.16E+04
L3	-2.06E+04	2.97E+04	-2.06E+04	2.97E+04
L4	-3.00E+04	2.36E+04	-2.97E+04	2.31E+04
NF	—	—	—	—
NS	-2.89E+04	2.36E+04	-2.87E+04	2.33E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-187. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

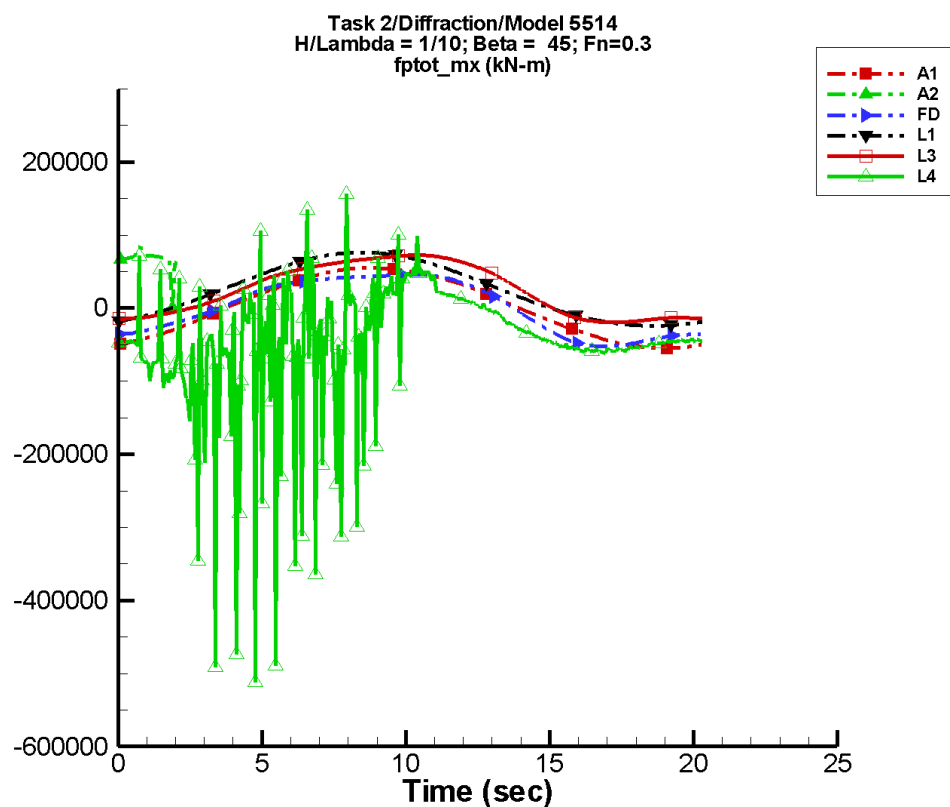
Table H-373. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	25.4	3.63E+04	-75	56.7	-150
A2	-86.3	3.83E+04	-78	5.53E+03	26
FD	-101.	3.43E+04	-64	5.72E+03	6
L1	1.05E+04	3.35E+04	-63	1.07E+03	138
L3	1.04E+04	3.34E+04	-69	4.79E+03	26
L4	-5.60E+03	3.19E+04	-68	6.99E+03	20
NF	—	—	—	—	—
NS	-5.46E+03	3.50E+04	-71	3.30E+03	63

Table H-374. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.66E+04	3.66E+04	-3.65E+04	3.65E+04
A2	-4.49E+04	3.97E+04	-4.37E+04	3.95E+04
FD	-4.03E+04	2.98E+04	-4.01E+04	2.97E+04
L1	-2.19E+04	4.50E+04	-2.19E+04	4.50E+04
L3	-2.55E+04	4.23E+04	-2.55E+04	4.24E+04
L4	-4.32E+04	2.77E+04	-4.27E+04	2.65E+04
NF	—	—	—	—
NS	-3.75E+04	3.08E+04	-3.73E+04	3.05E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-188. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

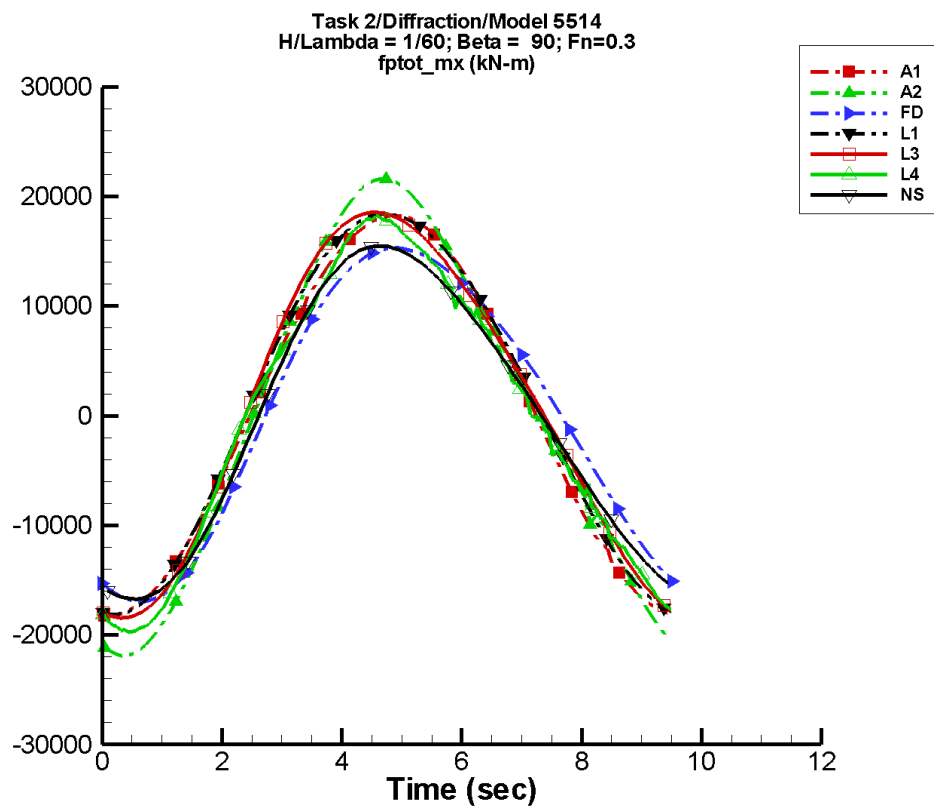
Table H-375. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	38.2	5.46E+04	-75	85.2	-150
A2	-1.50E+05	2.64E+05	115	8.92E+04	-17
FD	-326.	4.96E+04	-72	6.33E+03	35
L1	2.36E+04	5.02E+04	-63	2.41E+03	138
L3	2.32E+04	4.73E+04	-75	4.75E+03	64
L4	-4.56E+04	4.51E+04	-131	2.76E+04	79
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-376. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.49E+04	5.49E+04	-5.48E+04	5.48E+04
A2	-974.	8.38E+04	-1.73E+03	7.61E+04
FD	-5.25E+04	4.61E+04	-5.22E+04	4.60E+04
L1	-2.42E+04	7.62E+04	-2.42E+04	7.62E+04
L3	-1.94E+04	7.25E+04	-1.93E+04	7.24E+04
L4	-5.12E+05	1.64E+05	-1.42E+05	5.59E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-189. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-377. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

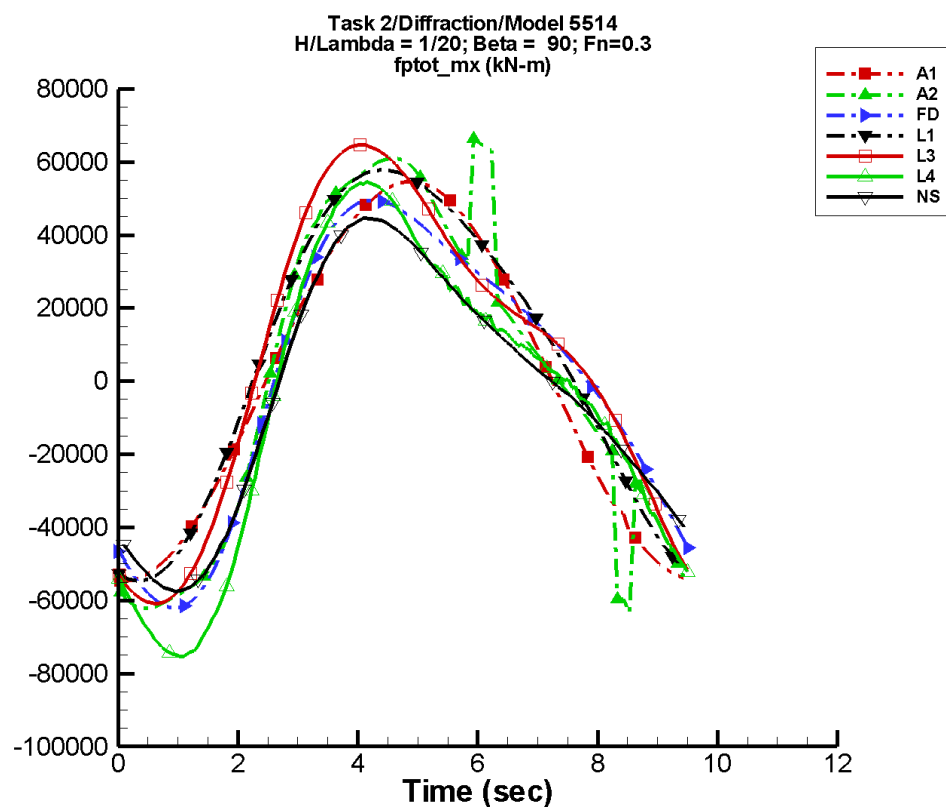
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	13.3	1.82E+04	-98	29.7	-144
A2	-2.03	2.05E+04	-100	1.97E+03	166
FD	2.31	1.59E+04	-112	1.64E+03	169
L1	635.	1.82E+04	-97	884.	-159
L3	636.	1.82E+04	-97	1.92E+03	-175
L4	-485.	1.75E+04	-98	1.62E+03	-176
NF	—	—	—	—	—
NS	-439.	1.58E+04	-98	1.79E+03	169

Table H-378. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.83E+04	1.83E+04	-1.83E+04	1.80E+04
A2	-2.19E+04	2.16E+04	-2.16E+04	2.13E+04
FD	-1.70E+04	1.53E+04	-1.67E+04	1.51E+04
L1	-1.81E+04	1.84E+04	-1.81E+04	1.83E+04
L3	-1.84E+04	1.85E+04	-1.84E+04	1.85E+04
L4	-1.97E+04	1.84E+04	-1.95E+04	1.80E+04
NF	—	—	—	—
NS	-1.67E+04	1.55E+04	-1.65E+04	1.53E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-190. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

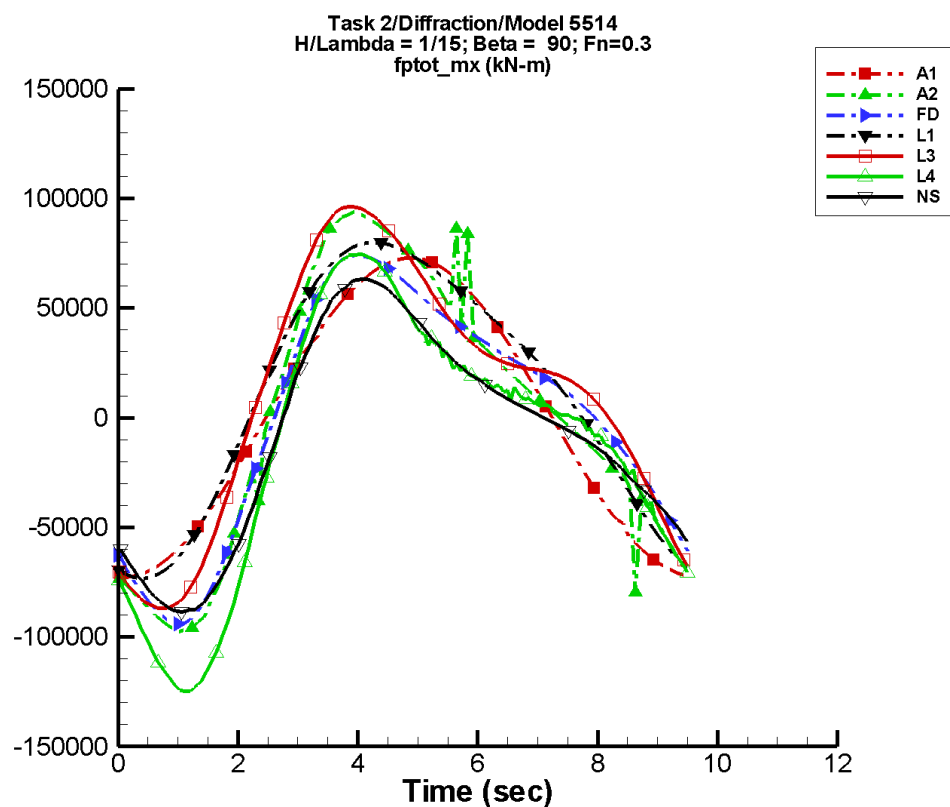
Table H–379. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	39.7	5.45E+04	-98	88.8	-144
A2	-124.	6.19E+04	-102	9.88E+03	166
FD	84.1	5.05E+04	-111	1.57E+04	168
L1	5.64E+03	5.46E+04	-97	7.96E+03	-159
L3	5.64E+03	5.45E+04	-97	1.85E+04	-175
L4	-6.21E+03	5.37E+04	-106	2.14E+04	170
NF	—	—	—	—	—
NS	-4.48E+03	4.41E+04	-101	1.47E+04	166

Table H–380. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.47E+04	5.46E+04	-5.48E+04	5.40E+04
A2	-1.37E+05	6.64E+04	-7.10E+04	6.05E+04
FD	-6.21E+04	4.95E+04	-6.09E+04	4.96E+04
L1	-5.46E+04	5.78E+04	-5.43E+04	5.76E+04
L3	-6.08E+04	6.46E+04	-6.05E+04	6.43E+04
L4	-7.54E+04	5.45E+04	-7.47E+04	5.38E+04
NF	—	—	—	—
NS	-5.76E+04	4.46E+04	-5.65E+04	4.37E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-191. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

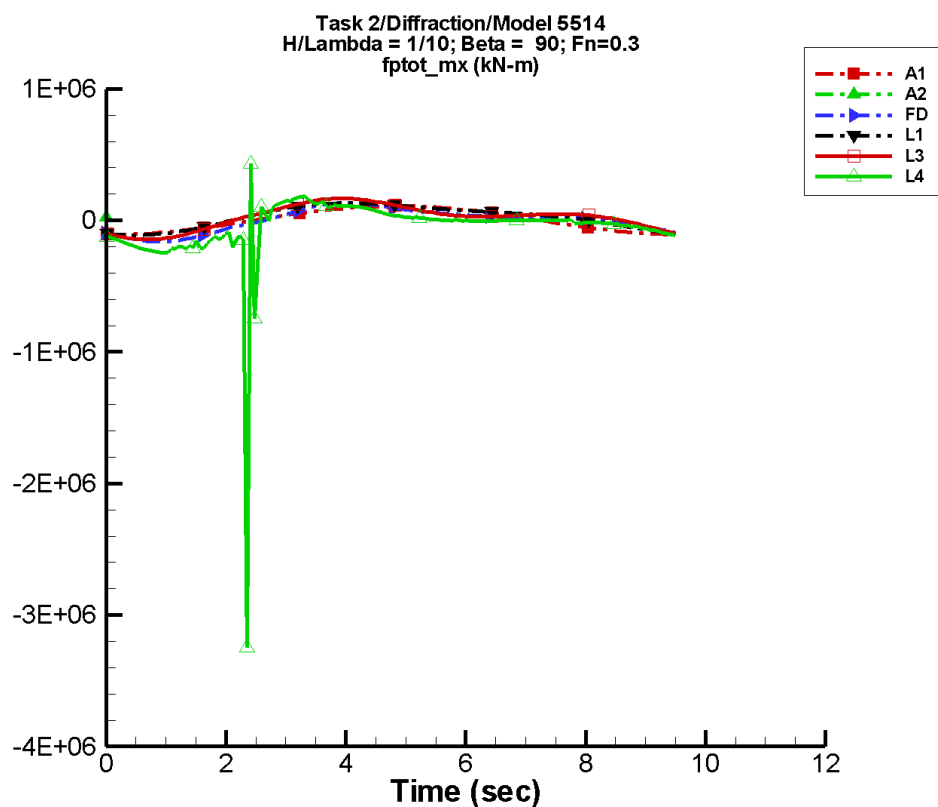
Table H–381. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	52.9	7.26E+04	-98	118.	-144
A2	207.	8.23E+04	-102	2.79E+04	158
FD	167.	7.00E+04	-110	2.78E+04	168
L1	1.00E+04	7.28E+04	-97	1.41E+04	-159
L3	9.99E+03	7.32E+04	-97	3.27E+04	-175
L4	-1.36E+04	7.46E+04	-110	3.87E+04	170
NF	—	—	—	—	—
NS	-9.52E+03	6.06E+04	-103	2.64E+04	166

Table H–382. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.28E+04	7.27E+04	-7.29E+04	7.19E+04
A2	-9.76E+04	9.38E+04	-9.50E+04	9.11E+04
FD	-9.41E+04	7.41E+04	-9.15E+04	7.46E+04
L1	-7.33E+04	7.99E+04	-7.28E+04	7.96E+04
L3	-8.69E+04	9.62E+04	-8.63E+04	9.56E+04
L4	-1.25E+05	7.46E+04	-1.23E+05	7.39E+04
NF	—	—	—	—
NS	-8.85E+04	6.32E+04	-8.76E+04	6.22E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-192. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

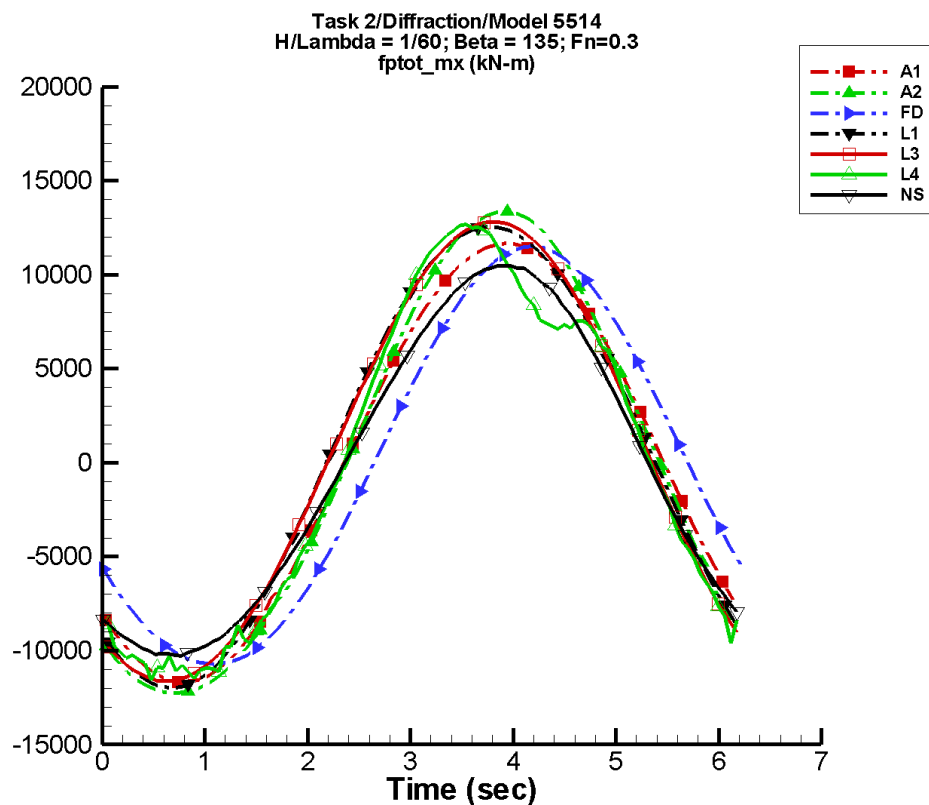
Table H–383. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	79.5	1.09E+05	-98	178.	-144
A2	-3.14E+03	9.19E+04	-87	7.75E+04	-14
FD	27.3	1.08E+05	-110	5.42E+04	169
L1	2.25E+04	1.09E+05	-97	3.18E+04	-159
L3	2.22E+04	1.07E+05	-97	6.67E+04	-174
L4	-4.81E+04	1.29E+05	-125	1.00E+05	154
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–384. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.09E+05	1.09E+05	-1.10E+05	1.08E+05
A2	2.29E+04	2.64E+04	2.29E+04	2.64E+04
FD	-1.60E+05	1.33E+05	-1.55E+05	1.34E+05
L1	-1.12E+05	1.31E+05	-1.11E+05	1.30E+05
L3	-1.45E+05	1.67E+05	-1.43E+05	1.66E+05
L4	-3.27E+06	4.32E+05	-5.49E+05	1.73E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-193. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–385. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

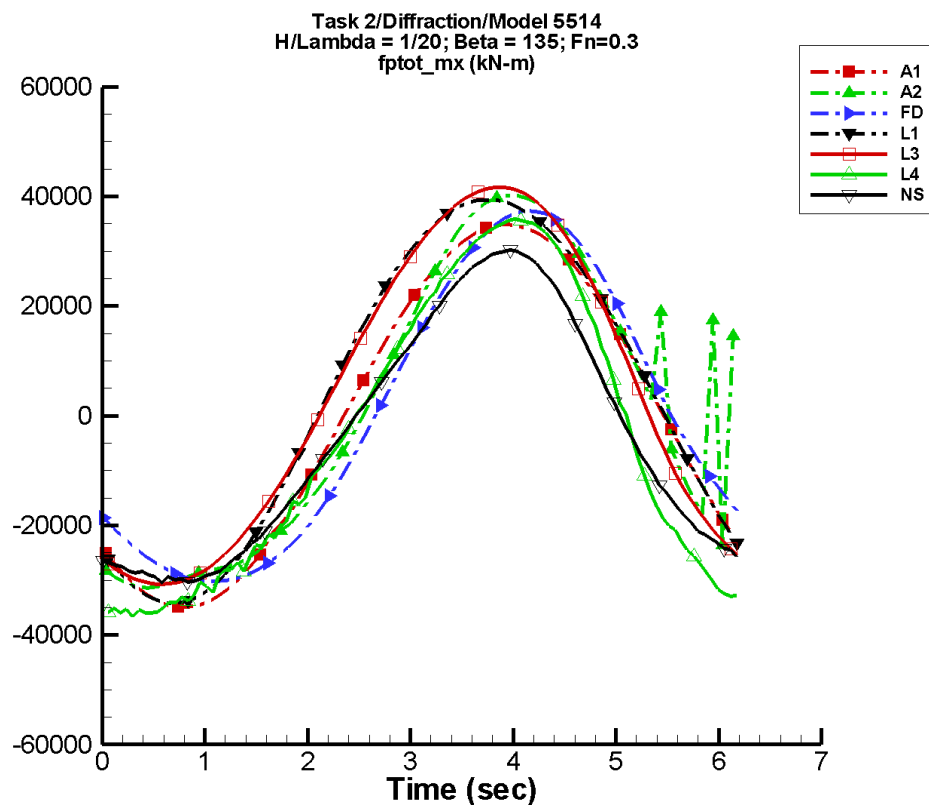
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	22.2	1.16E+04	-143	61.1	-111
A2	19.7	1.28E+04	-142	561.	-33
FD	-2.47	1.11E+04	-173	380.	-72
L1	434.	1.23E+04	-139	158.	152
L3	437.	1.23E+04	-138	264.	-58
L4	-200.	1.17E+04	-139	782.	47
NF	—	—	—	—	—
NS	-367.	1.03E+04	-133	578.	-29

Table H–386. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.19E+04	1.17E+04	-1.14E+04	1.14E+04
A2	-1.25E+04	1.34E+04	-1.20E+04	1.30E+04
FD	-1.07E+04	1.15E+04	-1.05E+04	1.12E+04
L1	-1.20E+04	1.26E+04	-1.19E+04	1.24E+04
L3	-1.16E+04	1.28E+04	-1.15E+04	1.27E+04
L4	-1.17E+04	1.27E+04	-1.10E+04	1.24E+04
NF	—	—	—	—
NS	-1.03E+04	1.05E+04	-1.02E+04	1.04E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-194. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

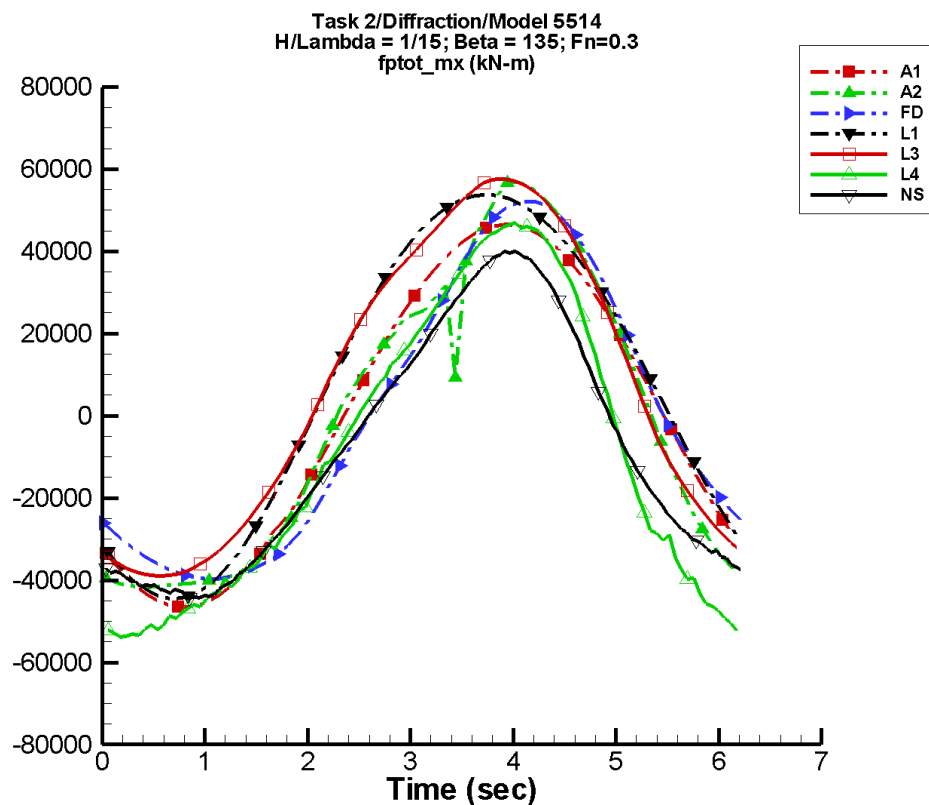
Table H–387. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	66.3	3.48E+04	-143	183.	-111
A2	1.37E+03	3.49E+04	-148	3.27E+03	-35
FD	34.6	3.36E+04	-171	3.62E+03	-66
L1	3.82E+03	3.68E+04	-139	1.33E+03	149
L3	3.86E+03	3.66E+04	-136	2.52E+03	-46
L4	-4.47E+03	3.49E+04	-137	6.55E+03	-49
NF	—	—	—	—	—
NS	-4.24E+03	2.91E+04	-129	4.04E+03	-7

Table H–388. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.55E+04	3.49E+04	-3.40E+04	3.40E+04
A2	-3.14E+04	4.02E+04	-3.03E+04	3.90E+04
FD	-3.02E+04	3.74E+04	-2.97E+04	3.61E+04
L1	-3.42E+04	3.94E+04	-3.38E+04	3.91E+04
L3	-3.08E+04	4.17E+04	-3.05E+04	4.14E+04
L4	-3.70E+04	3.59E+04	-3.58E+04	3.52E+04
NF	—	—	—	—
NS	-3.05E+04	3.02E+04	-2.99E+04	2.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-195. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

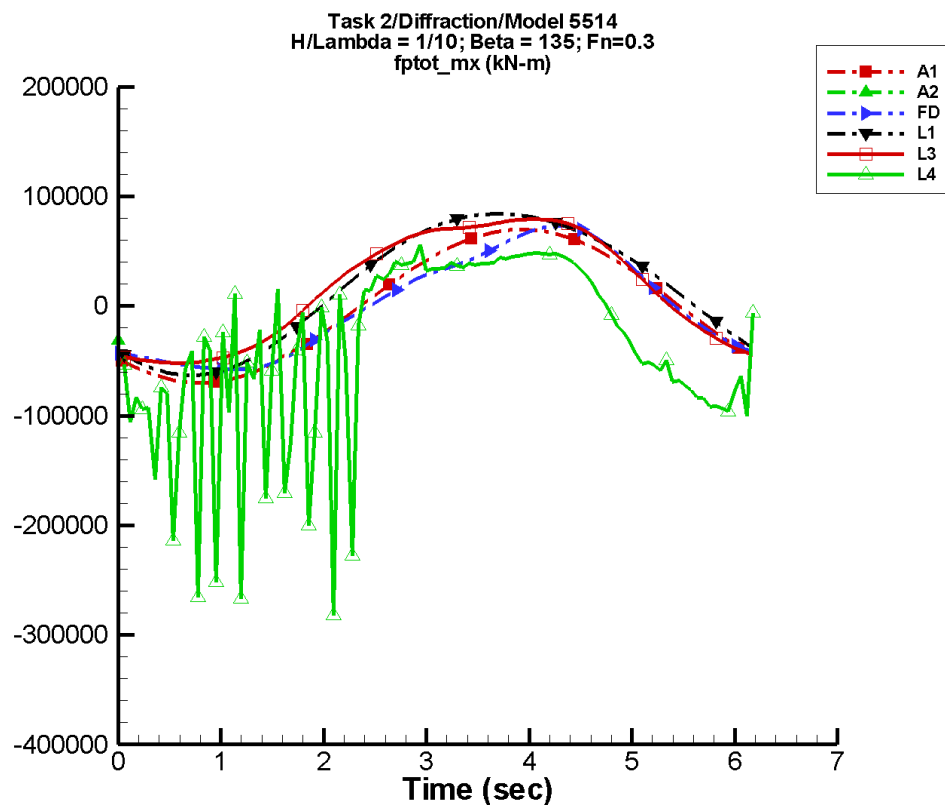
Table H–389. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	88.2	4.63E+04	-143	243.	-111
A2	-113.	4.68E+04	-142	6.45E+03	-66
FD	141.	4.49E+04	-169	5.73E+03	-73
L1	6.76E+03	4.90E+04	-139	2.35E+03	149
L3	6.86E+03	4.83E+04	-135	3.47E+03	-53
L4	-9.86E+03	4.75E+04	-134	9.81E+03	-47
NF	—	—	—	—	—
NS	-9.18E+03	3.93E+04	-130	6.36E+03	-2

Table H–390. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.73E+04	4.65E+04	-4.53E+04	4.53E+04
A2	-4.20E+04	5.68E+04	-4.11E+04	5.29E+04
FD	-3.98E+04	5.22E+04	-3.90E+04	5.03E+04
L1	-4.45E+04	5.37E+04	-4.40E+04	5.33E+04
L3	-3.90E+04	5.76E+04	-3.87E+04	5.70E+04
L4	-5.39E+04	4.69E+04	-5.30E+04	4.58E+04
NF	—	—	—	—
NS	-4.44E+04	4.00E+04	-4.37E+04	3.92E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-196. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

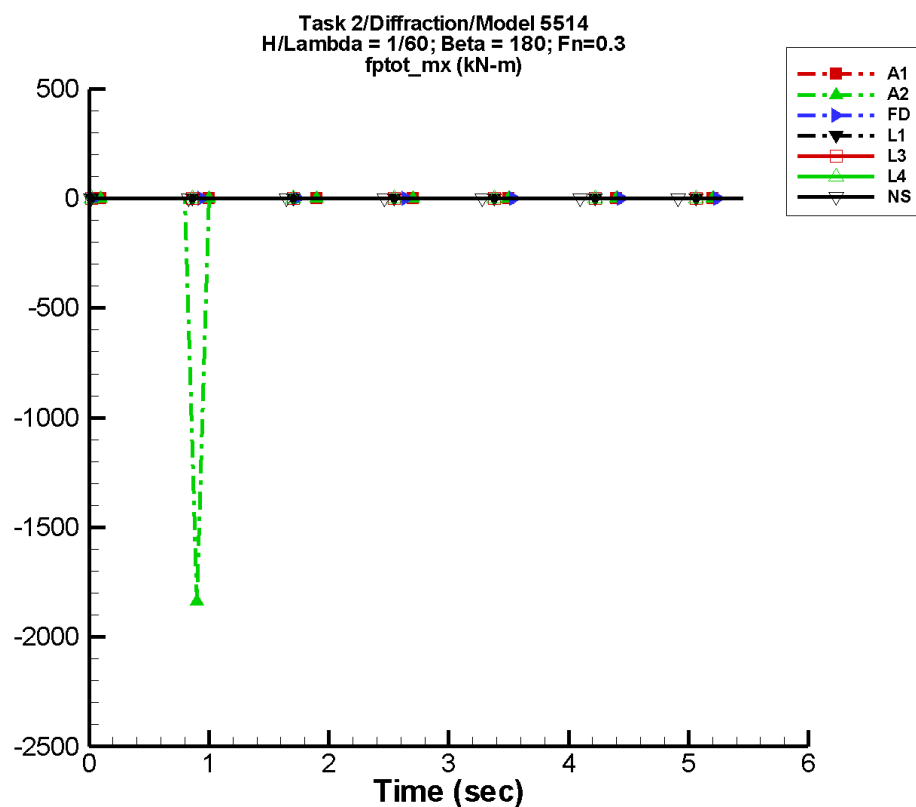
Table H-391. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	133.	6.96E+04	-143	366.	-111
A2	-1.37E+04	2.54E+04	106	6.63E+04	-61
FD	470.	6.27E+04	-164	6.19E+03	-104
L1	1.52E+04	7.36E+04	-139	5.24E+03	149
L3	1.55E+04	6.83E+04	-131	3.15E+03	-125
L4	-3.65E+04	8.01E+04	-135	1.59E+04	17
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-392. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.11E+04	6.98E+04	-6.80E+04	6.80E+04
A2	-3.12E+04	-2.10E+04	-3.12E+04	-2.10E+04
FD	-5.78E+04	7.32E+04	-5.68E+04	7.02E+04
L1	-6.33E+04	8.42E+04	-6.25E+04	8.36E+04
L3	-5.18E+04	7.92E+04	-5.14E+04	7.87E+04
L4	-2.82E+05	5.62E+04	-1.15E+05	4.74E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-197. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-393. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

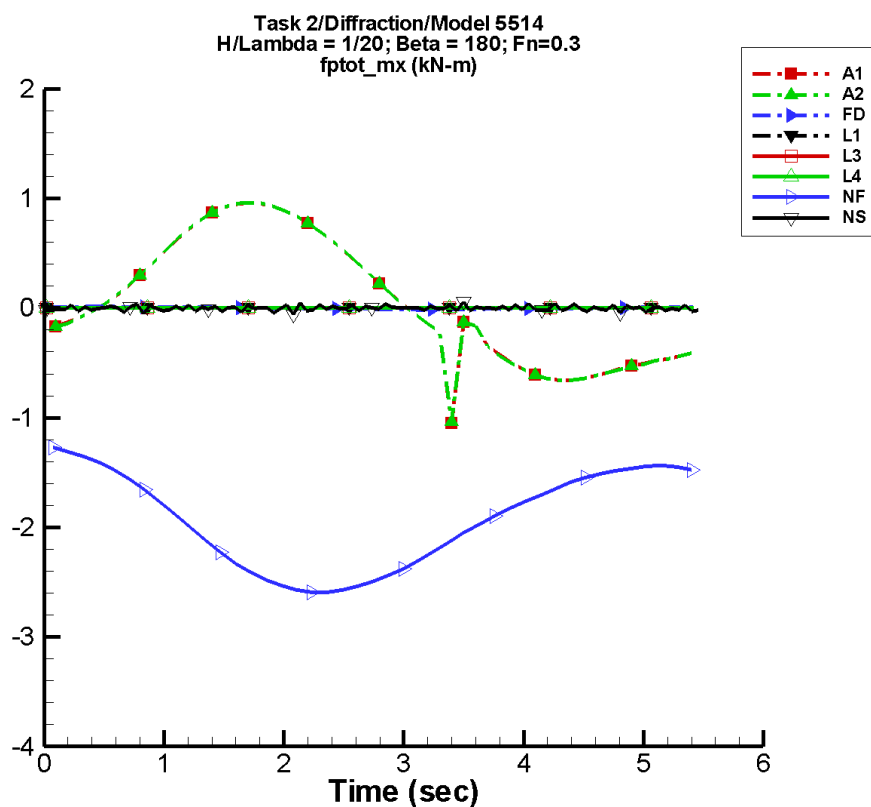
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.70E-02	0.260	-17	4.16E-02	-126
A2	-22.4	47.4	-152	54.1	150
FD	-7.47E-05	3.79E-03	144	6.03E-04	139
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-8.30E-05	1.44E-03	-174	1.18E-03	-13

Table H-394. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-0.351	0.321	-0.206	0.305
A2	-1.84E+03	0.322	-245.	21.3
FD	-4.79E-03	6.19E-03	-3.64E-03	4.23E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.78E-02	2.46E-02	-2.79E-03	3.59E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-198. Time history of  $M_x^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

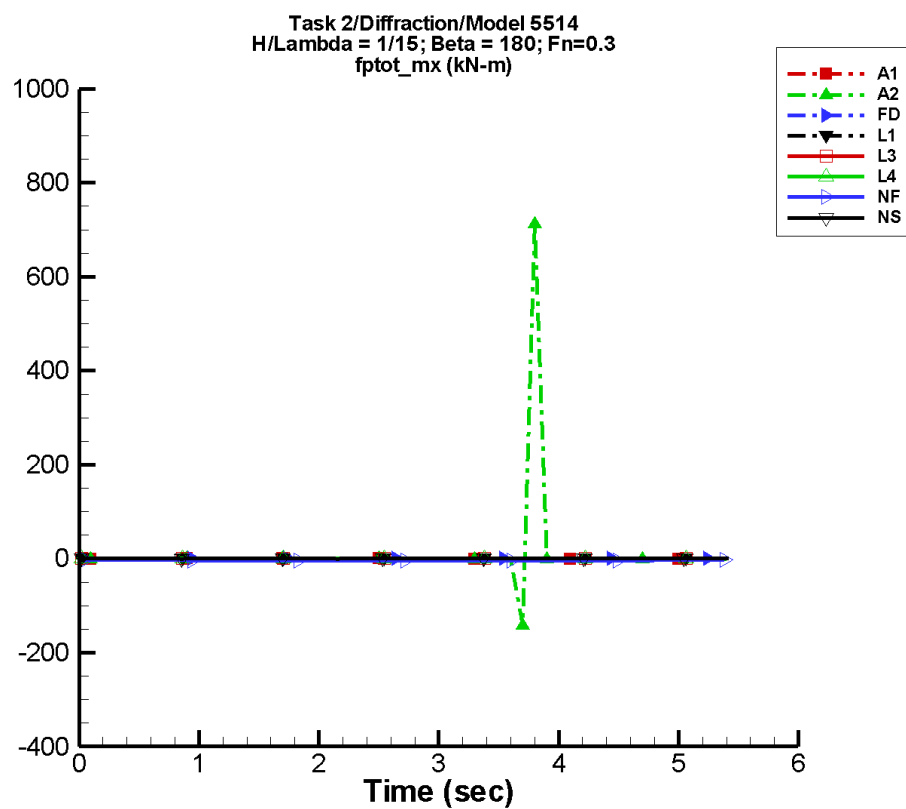
Table H-395. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.10E-02	0.777	-17	0.124	-126
A2	5.06E-02	0.779	-17	0.124	-126
FD	-3.50E-04	1.06E-02	145	7.30E-04	9
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-2.00	0.653	-166	9.78E-02	151
NS	-1.51E-03	4.78E-03	-112	3.06E-03	1

Table H-396. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.05	0.961	-0.616	0.913
A2	-1.04	0.962	-0.618	0.914
FD	-1.77E-02	1.39E-02	-1.27E-02	1.03E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-2.84	-1.27	-2.80	-1.29
NS	-6.16E-02	5.84E-02	-1.29E-02	5.44E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-199. Time history of  $M_x^{ptot}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

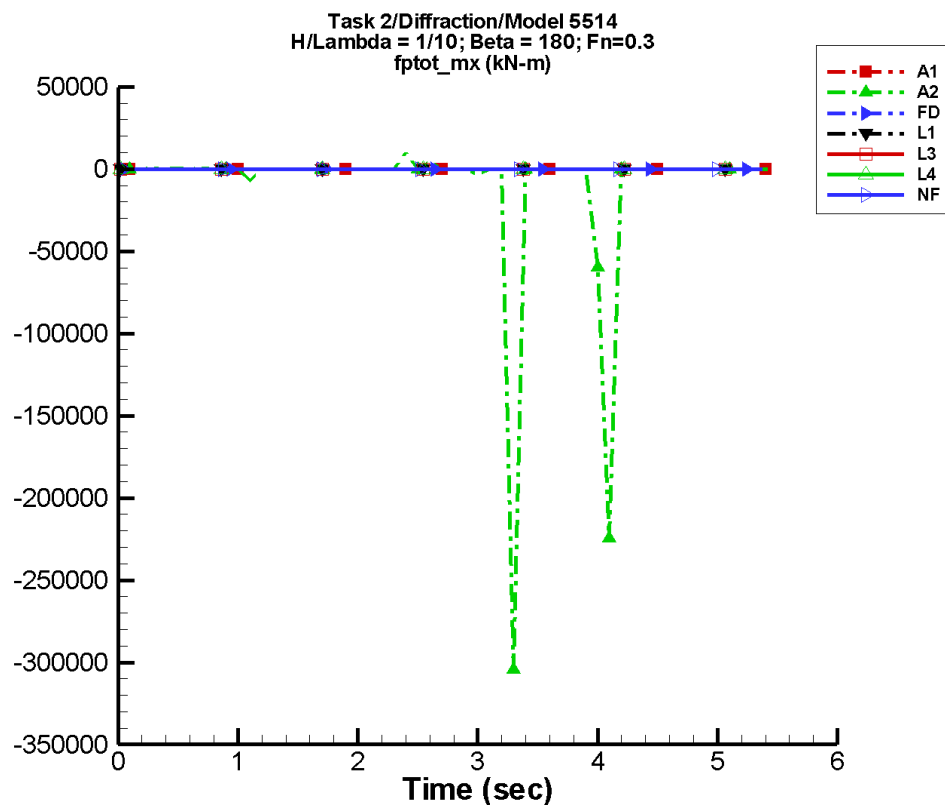
Table H-397. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.79E-02	1.03	-17	0.166	-126
A2	10.7	20.2	-155	20.2	-40
FD	-3.53E-04	1.53E-02	138	4.25E-03	-17
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-3.80	0.736	-167	0.218	-165
NS	-2.18E-03	7.59E-03	-113	2.76E-03	9

Table H-398. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40	1.28	-0.820	1.22
A2	-142.	713.	-7.51	76.3
FD	-3.67E-02	1.84E-02	-2.47E-02	1.36E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-5.17	-2.70	-4.80	-2.73
NS	-0.133	0.131	-2.10E-02	1.29E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NSHIPMO.

Figure H-200. Time history of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

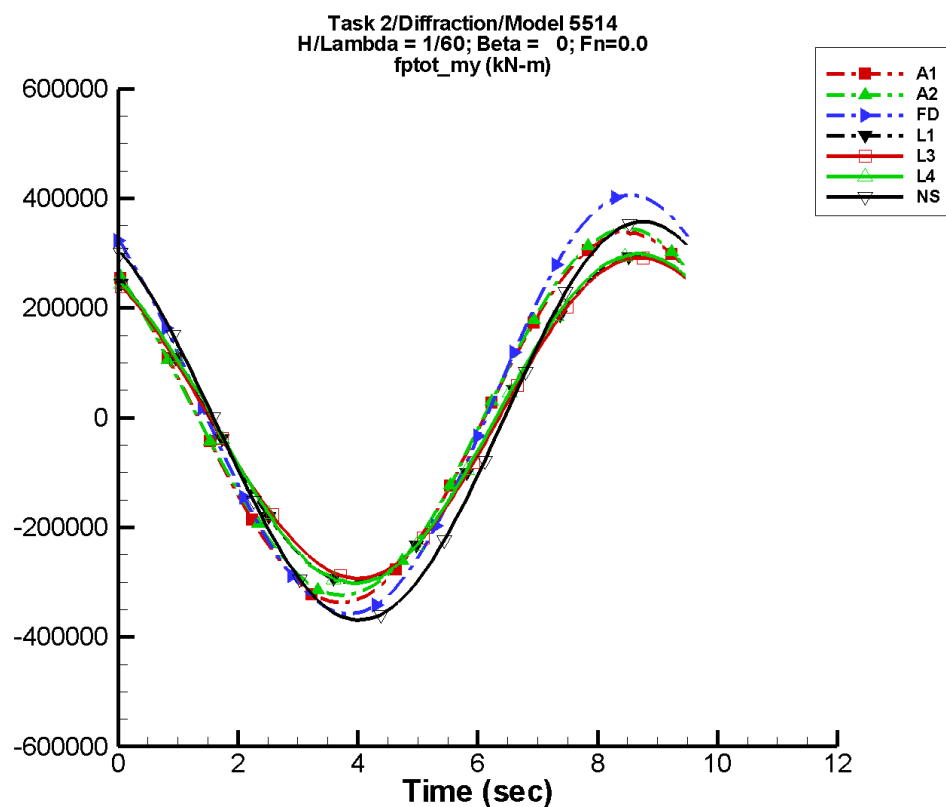
Table H-399. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.102	1.55	-17	0.249	-126
A2	-1.06E+04	1.94E+04	33	1.37E+04	159
FD	8.96E-05	2.69E-02	120	5.16E-03	2
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-10.3	4.64	26	1.12	-123
NS	—	—	—	—	—

Table H-400. Minimum and maximum of  $M_x^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.10	1.92	-1.23	1.83
A2	-3.04E+05	9.96E+03	-4.13E+04	5.02E+03
FD	-0.212	0.183	-4.51E-02	4.34E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-20.0	7.23	-18.2	-9.69E-02
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-201. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-401. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

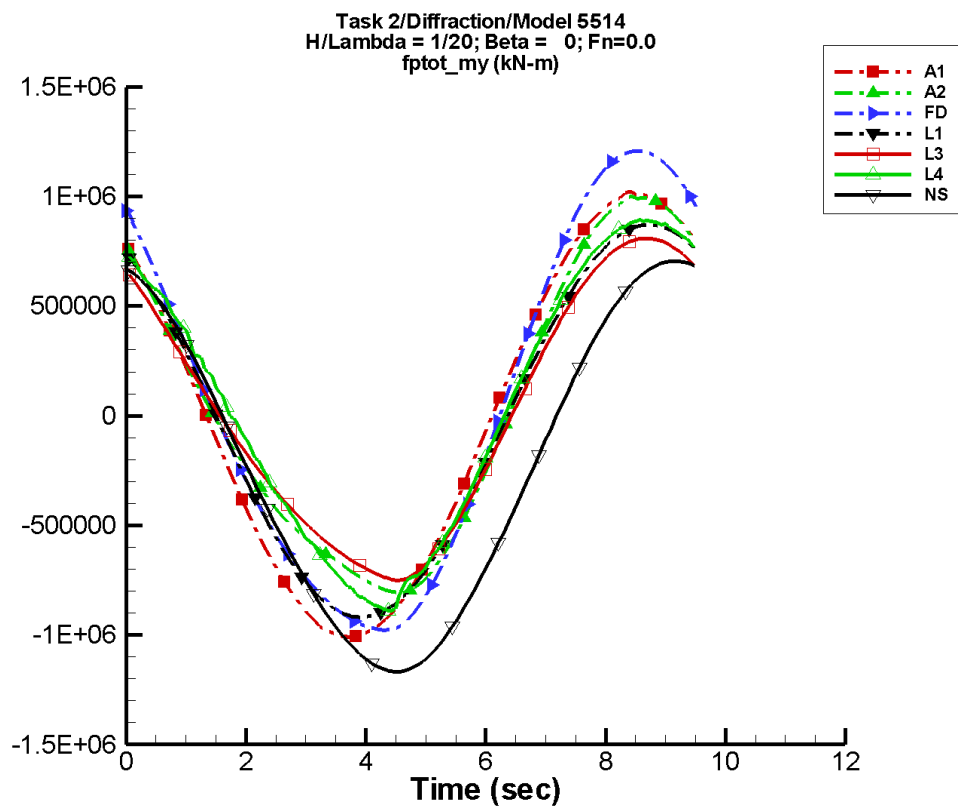
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-48.5	3.37E+05	125	201.	141
A2	5.64E+03	3.34E+05	125	6.37E+03	-168
FD	1.92E+04	3.82E+05	121	7.51E+03	-165
L1	-2.78E+03	2.98E+05	118	388.	82
L3	-2.32E+03	2.91E+05	117	4.84E+03	-154
L4	309.	2.99E+05	118	3.87E+03	-71
NF	—	—	—	—	—
NS	-7.87E+03	3.62E+05	118	3.59E+03	-148

Table H-402. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.37E+05	3.41E+05	-3.34E+05	3.34E+05
A2	-3.24E+05	3.48E+05	-3.21E+05	3.42E+05
FD	-3.58E+05	4.06E+05	-3.58E+05	4.02E+05
L1	-3.01E+05	2.96E+05	-3.00E+05	2.94E+05
L3	-2.93E+05	2.92E+05	-2.92E+05	2.91E+05
L4	-3.02E+05	2.99E+05	-3.00E+05	2.97E+05
NF	—	—	—	—
NS	-3.69E+05	3.58E+05	-3.66E+05	3.54E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-202. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

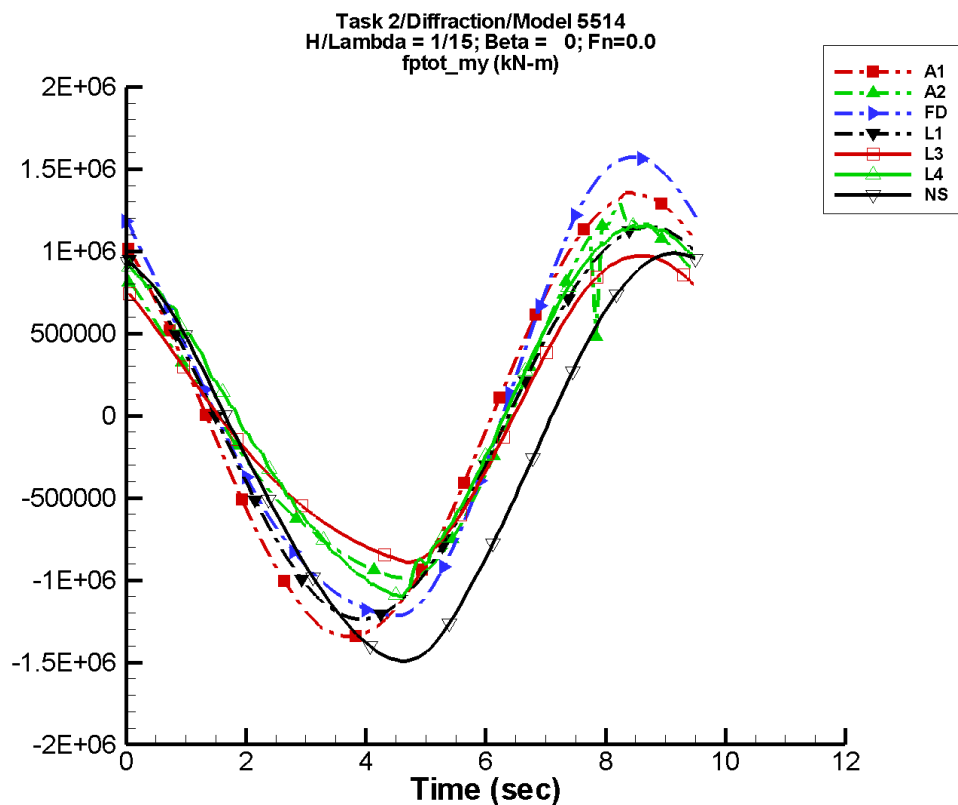
Table H-403. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-145.	1.01E+06	125	601.	141
A2	3.58E+04	8.79E+05	116	1.17E+05	-173
FD	6.59E+04	1.08E+06	118	9.44E+04	-164
L1	-2.54E+04	8.94E+05	118	3.58E+03	70
L3	1.07E+04	7.56E+05	114	7.58E+04	-160
L4	4.47E+04	8.47E+05	114	5.62E+04	-111
NF	—	—	—	—	—
NS	-2.30E+05	9.26E+05	103	1.85E+04	-172

Table H-404. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.01E+06	1.02E+06	-9.98E+05	1.00E+06
A2	-8.07E+05	1.00E+06	-7.93E+05	9.84E+05
FD	-9.77E+05	1.21E+06	-9.78E+05	1.19E+06
L1	-9.19E+05	8.70E+05	-9.16E+05	8.66E+05
L3	-7.52E+05	8.09E+05	-7.44E+05	8.05E+05
L4	-8.89E+05	8.94E+05	-8.71E+05	8.86E+05
NF	—	—	—	—
NS	-1.17E+06	7.06E+05	-1.16E+06	6.96E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-203. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

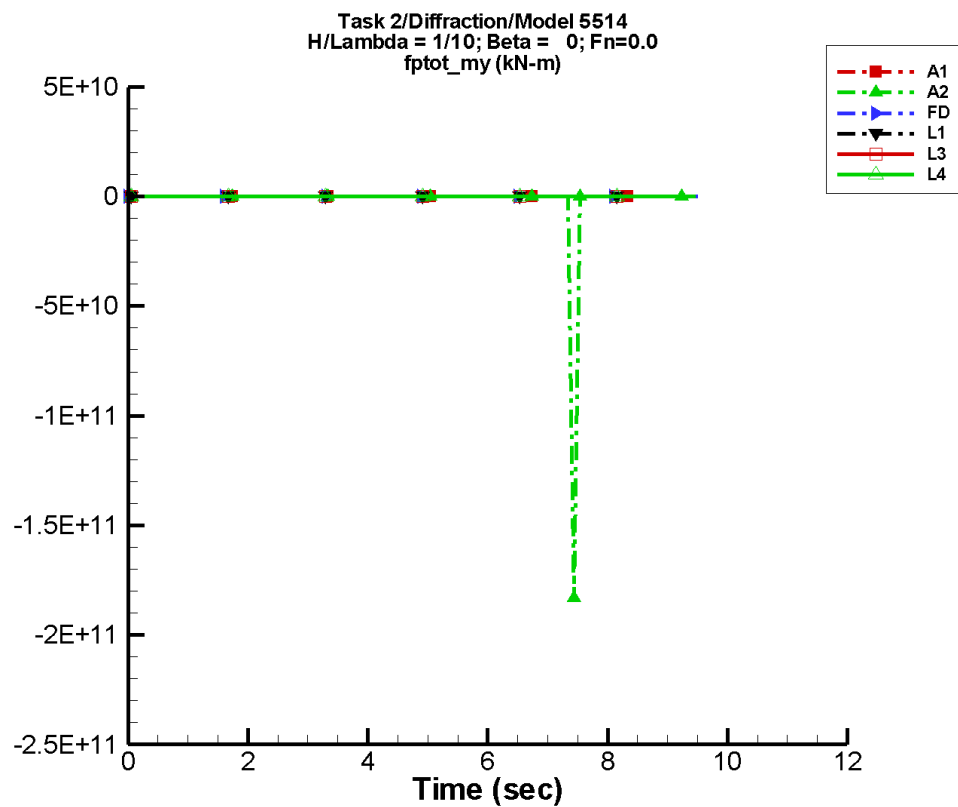
Table H-405. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-193.	1.34E+06	125	800.	141
A2	2.66E+04	1.05E+06	115	1.59E+05	-158
FD	8.97E+04	1.38E+06	117	1.58E+05	-166
L1	-4.52E+04	1.19E+06	118	6.41E+03	69
L3	9.06E+03	9.02E+05	113	1.21E+05	-162
L4	8.43E+04	1.07E+06	113	9.40E+04	-118
NF	—	—	—	—	—
NS	-2.46E+05	1.22E+06	103	4.00E+04	-167

Table H-406. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.34E+06	1.36E+06	-1.33E+06	1.33E+06
A2	-1.00E+06	1.29E+06	-9.78E+05	1.18E+06
FD	-1.21E+06	1.57E+06	-1.20E+06	1.55E+06
L1	-1.24E+06	1.15E+06	-1.23E+06	1.14E+06
L3	-8.91E+05	9.72E+05	-8.81E+05	9.68E+05
L4	-1.10E+06	1.16E+06	-1.08E+06	1.15E+06
NF	—	—	—	—
NS	-1.49E+06	9.88E+05	-1.48E+06	9.80E+05

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-204. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

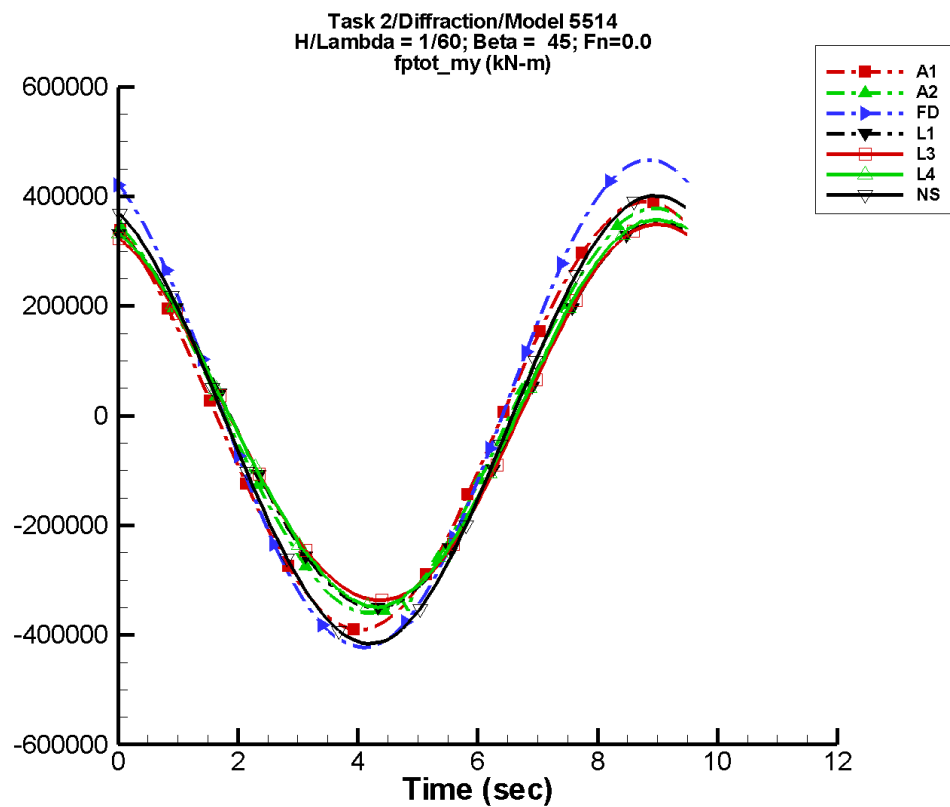
Table H-407. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-290.	2.02E+06	125	1.20E+03	141
A2	-2.07E+09	3.79E+09	-20	3.55E+09	61
FD	-1.61E+03	1.64E+06	116	1.93E+05	-158
L1	-1.02E+05	1.79E+06	118	1.45E+04	67
L3	-1.13E+05	8.62E+05	114	1.33E+05	-155
L4	9.22E+04	1.34E+06	108	1.79E+05	-99
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-408. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.02E+06	2.04E+06	-2.00E+06	2.00E+06
A2	-1.83E+11	1.67E+06	-2.44E+10	2.09E+09
FD	-1.53E+06	1.74E+06	-1.52E+06	1.71E+06
L1	-1.89E+06	1.69E+06	-1.88E+06	1.68E+06
L3	-9.71E+05	8.05E+05	-9.64E+05	8.00E+05
L4	-1.95E+06	1.39E+06	-1.53E+06	1.37E+06
NF	—	—	—	—
NS	—	—	—	—

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Data identically zero, insufficient, or not available from NFA.

Figure H-205. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-409. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

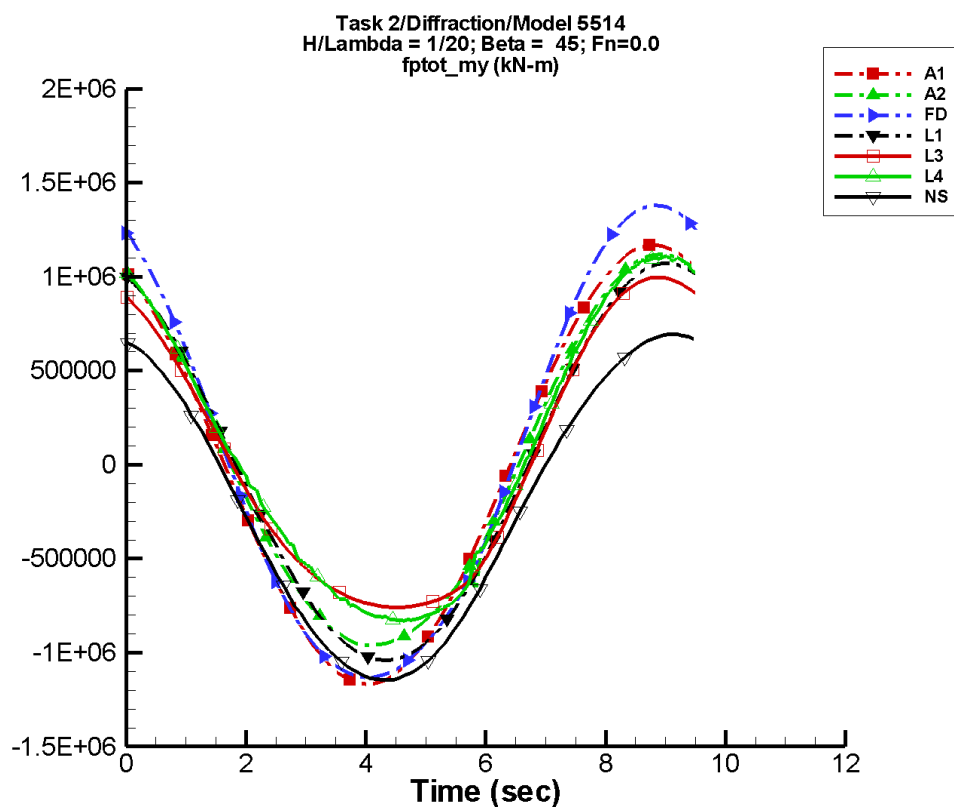
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-243.	3.89E+05	113	140.	87
A2	5.12E+03	3.67E+05	108	3.73E+03	137
FD	1.93E+04	4.46E+05	110	2.66E+03	134
L1	-1.52E+03	3.52E+05	105	3.37E+03	143
L3	-1.02E+03	3.44E+05	105	9.68E+03	165
L4	2.49E+03	3.52E+05	106	6.31E+03	177
NF	—	—	—	—	—
NS	-7.23E+03	4.08E+05	112	255.	140

Table H-410. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.91E+05	3.90E+05	-3.86E+05	3.86E+05
A2	-3.60E+05	3.79E+05	-3.56E+05	3.74E+05
FD	-4.23E+05	4.67E+05	-4.27E+05	4.62E+05
L1	-3.50E+05	3.54E+05	-3.49E+05	3.52E+05
L3	-3.37E+05	3.49E+05	-3.36E+05	3.48E+05
L4	-3.50E+05	3.58E+05	-3.47E+05	3.56E+05
NF	—	—	—	—
NS	-4.16E+05	4.01E+05	-4.12E+05	3.97E+05



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Data identically zero, insufficient, or not available from NFA.

Figure H-206. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

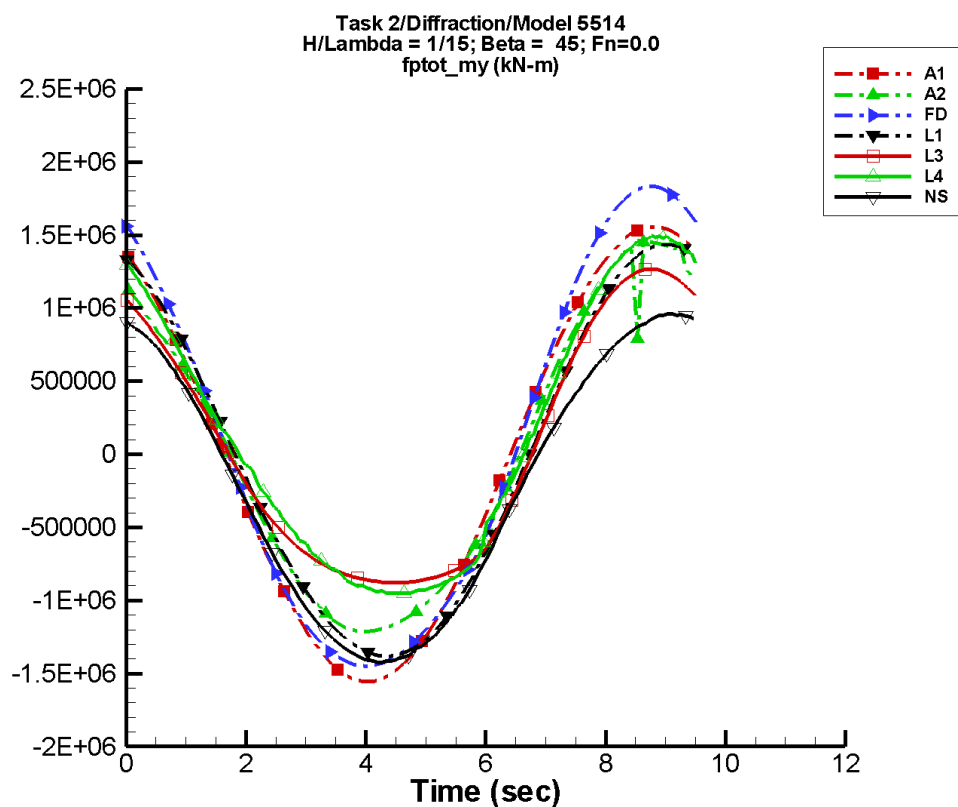
Table H-411. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-726.	1.16E+06	113	420.	87
A2	3.41E+04	1.05E+06	108	4.78E+04	132
FD	6.56E+04	1.27E+06	110	5.99E+04	130
L1	-1.16E+04	1.06E+06	105	2.99E+04	147
L3	2.59E+04	8.97E+05	105	1.06E+05	150
L4	6.88E+04	9.72E+05	105	9.50E+04	159
NF	—	—	—	—	—
NS	-2.19E+05	9.23E+05	108	1.36E+04	-17

Table H-412. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.17E+06	1.17E+06	-1.16E+06	1.15E+06
A2	-9.61E+05	1.12E+06	-9.52E+05	1.11E+06
FD	-1.13E+06	1.38E+06	-1.15E+06	1.36E+06
L1	-1.04E+06	1.07E+06	-1.04E+06	1.07E+06
L3	-7.59E+05	9.96E+05	-7.57E+05	9.92E+05
L4	-8.32E+05	1.11E+06	-8.26E+05	1.10E+06
NF	—	—	—	—
NS	-1.15E+06	6.96E+05	-1.14E+06	6.83E+05

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Data identically zero, insufficient, or not available from NFA.

Figure H-207. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

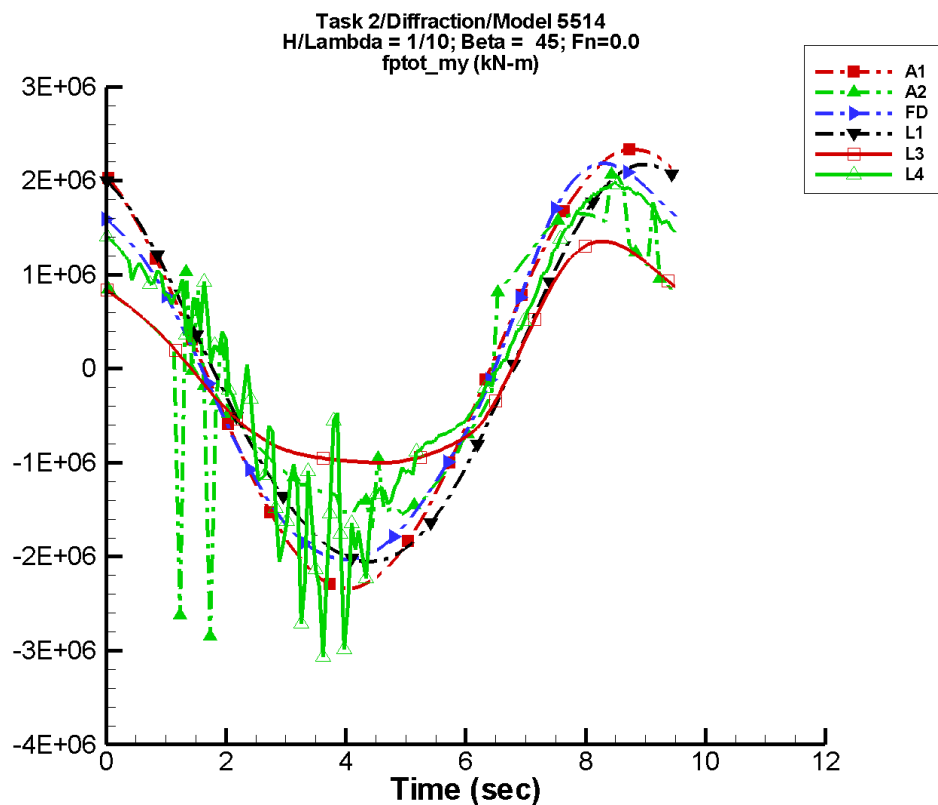
Table H-413. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-967.	1.55E+06	113	559.	87
A2	1.99E+04	1.30E+06	110	7.39E+04	167
FD	8.68E+04	1.65E+06	111	9.82E+04	141
L1	-2.02E+04	1.41E+06	105	5.31E+04	148
L3	3.60E+04	1.09E+06	106	1.69E+05	153
L4	1.26E+05	1.21E+06	106	1.70E+05	160
NF	—	—	—	—	—
NS	-2.26E+05	1.20E+06	109	1.67E+04	-9

Table H-414. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.56E+06	1.55E+06	-1.54E+06	1.54E+06
A2	-1.21E+06	1.45E+06	-1.20E+06	1.38E+06
FD	-1.45E+06	1.83E+06	-1.46E+06	1.81E+06
L1	-1.38E+06	1.44E+06	-1.38E+06	1.43E+06
L3	-8.79E+05	1.27E+06	-8.78E+05	1.26E+06
L4	-9.51E+05	1.50E+06	-9.48E+05	1.48E+06
NF	—	—	—	—
NS	-1.42E+06	9.61E+05	-1.41E+06	9.50E+05

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-208. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

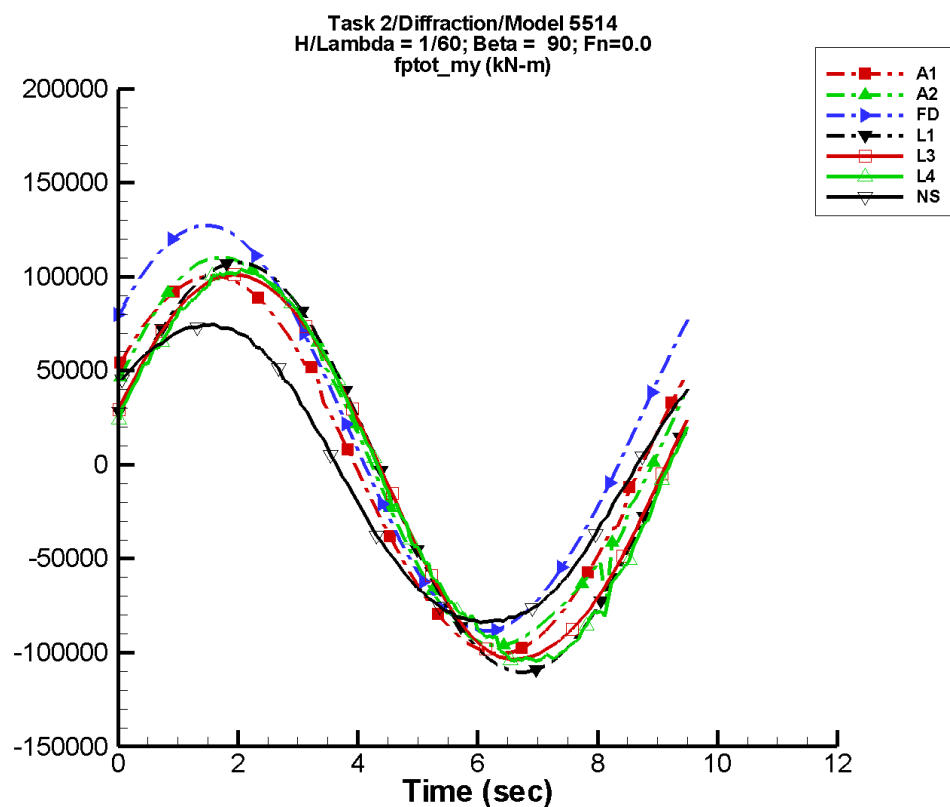
Table H-415. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.45E+03	2.33E+06	113	840.	87
A2	-3.85E+04	1.56E+06	125	3.60E+05	-135
FD	-1.88E+03	2.11E+06	115	1.05E+05	-151
L1	-4.43E+04	2.11E+06	105	1.19E+05	148
L3	-4.90E+04	1.16E+06	113	2.31E+05	174
L4	6.90E+04	1.75E+06	113	9.85E+04	-52
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-416. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.34E+06	2.34E+06	-2.31E+06	2.31E+06
A2	-2.85E+06	2.07E+06	-1.46E+06	1.72E+06
FD	-2.03E+06	2.18E+06	-2.05E+06	2.15E+06
L1	-2.05E+06	2.17E+06	-2.05E+06	2.16E+06
L3	-1.00E+06	1.35E+06	-1.00E+06	1.35E+06
L4	-3.06E+06	1.98E+06	-1.95E+06	1.94E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-209. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-417. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

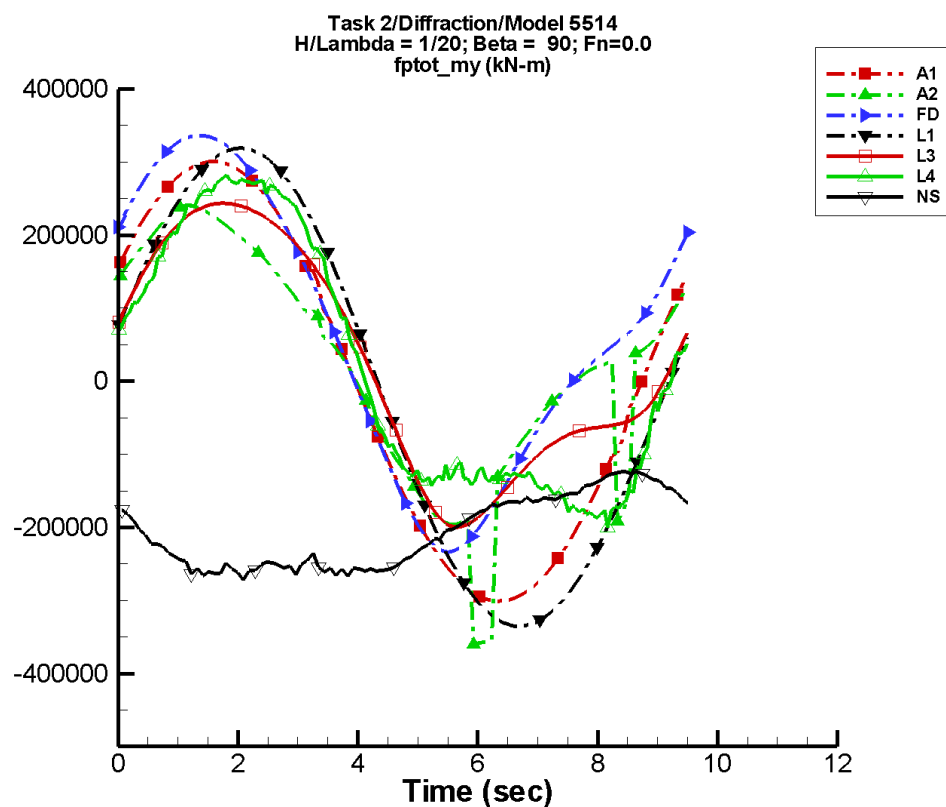
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-369.	1.01E+05	25	362.	-4
A2	5.23E+03	1.04E+05	18	3.10E+03	-86
FD	1.93E+04	1.08E+05	29	1.50E+03	-101
L1	-886.	1.09E+05	11	587.	-146
L3	-338.	1.03E+05	12	681.	167
L4	-1.99E+03	1.04E+05	10	2.85E+03	-34
NF	—	—	—	—	—
NS	-6.30E+03	8.01E+04	37	1.55E+03	-78

Table H-418. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.01E+05	1.01E+05	-9.95E+04	9.99E+04
A2	-9.63E+04	1.10E+05	-9.51E+04	1.11E+05
FD	-8.85E+04	1.27E+05	-8.72E+04	1.26E+05
L1	-1.10E+05	1.09E+05	-1.10E+05	1.09E+05
L3	-1.04E+05	1.03E+05	-1.03E+05	1.02E+05
L4	-1.04E+05	1.04E+05	-1.04E+05	1.04E+05
NF	—	—	—	—
NS	-8.40E+04	7.47E+04	-8.30E+04	7.35E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-210. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

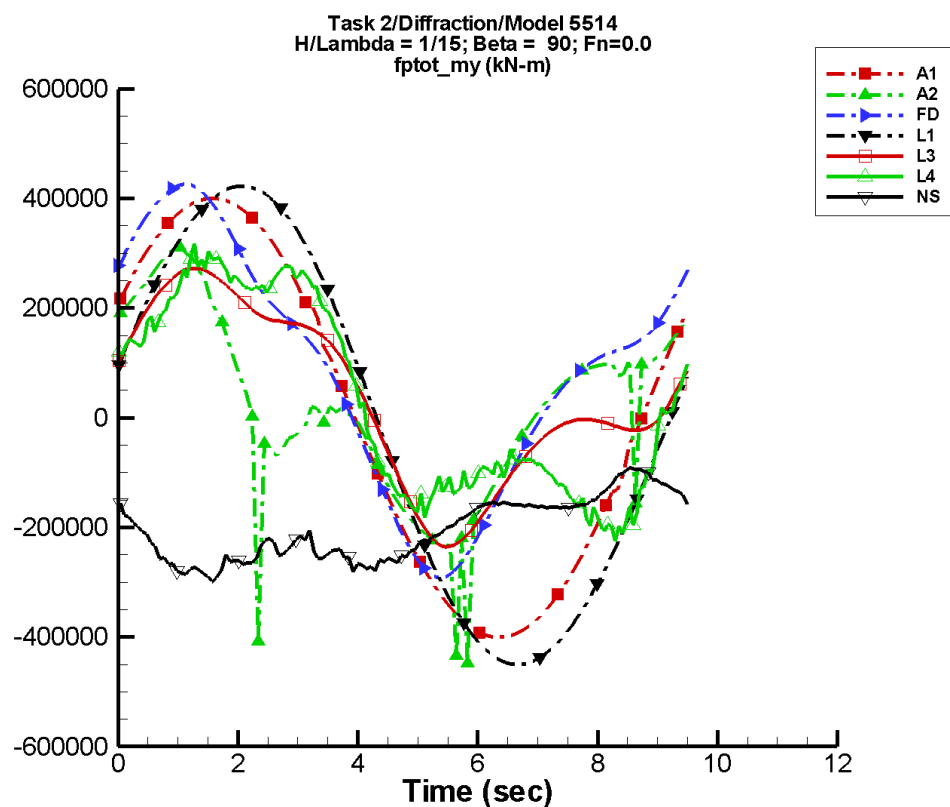
Table H-419. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.10E+03	3.03E+05	25	1.08E+03	-4
A2	2.48E+04	2.08E+05	39	2.33E+04	-108
FD	6.65E+04	2.57E+05	41	3.94E+04	-101
L1	-7.55E+03	3.28E+05	11	6.86E+03	-144
L3	3.10E+04	2.03E+05	22	3.94E+04	-110
L4	1.95E+04	2.26E+05	11	5.58E+04	-62
NF	—	—	—	—	—
NS	-2.07E+05	6.61E+04	155	1.43E+04	-178

Table H-420. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.01E+05	3.01E+05	-2.98E+05	2.99E+05
A2	-3.60E+05	5.32E+05	-2.65E+05	2.36E+05
FD	-2.34E+05	3.36E+05	-2.26E+05	3.33E+05
L1	-3.35E+05	3.24E+05	-3.34E+05	3.23E+05
L3	-2.00E+05	2.48E+05	-1.97E+05	2.47E+05
L4	-2.01E+05	2.87E+05	-1.83E+05	2.78E+05
NF	—	—	—	—
NS	-2.73E+05	-1.24E+05	-2.62E+05	-1.27E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-211. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

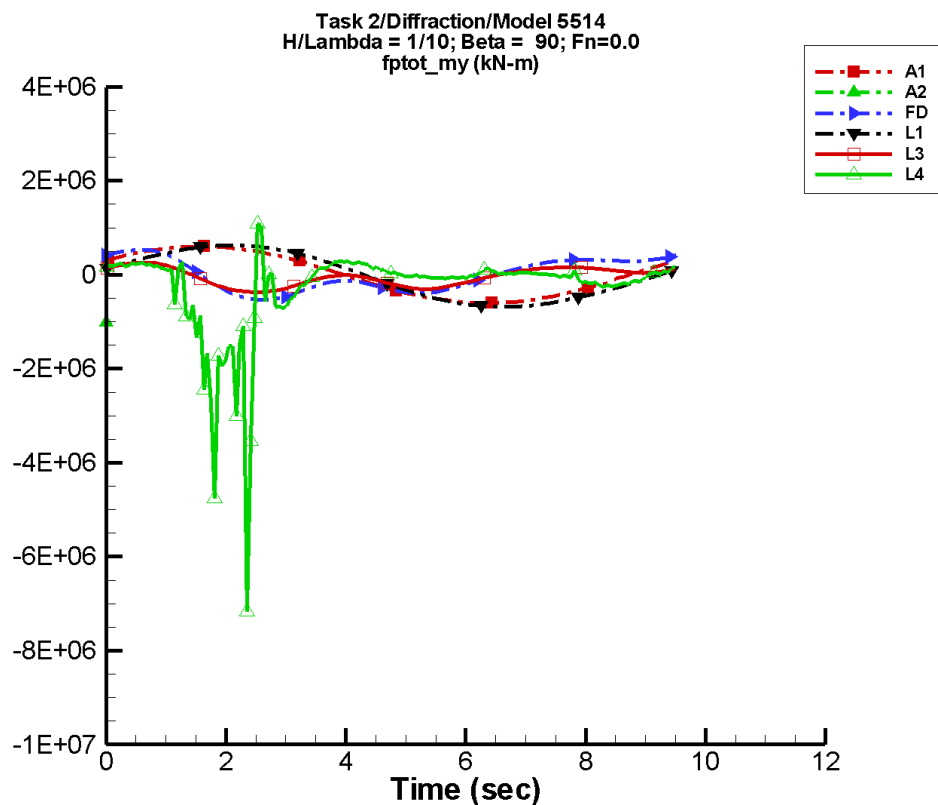
Table H-421. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.47E+03	4.03E+05	25	1.44E+03	-4
A2	2.42E+04	2.07E+05	67	8.98E+03	1
FD	9.12E+04	2.96E+05	51	3.88E+04	-101
L1	-1.33E+04	4.37E+05	11	1.26E+04	-144
L3	4.56E+04	2.00E+05	33	4.97E+04	-116
L4	3.38E+04	2.22E+05	12	6.56E+04	-65
NF	—	—	—	—	—
NS	-2.06E+05	6.99E+04	159	2.55E+04	-178

Table H-422. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.01E+05	4.01E+05	-3.97E+05	3.98E+05
A2	-4.48E+05	3.12E+05	-2.71E+05	2.96E+05
FD	-2.92E+05	4.26E+05	-2.80E+05	4.18E+05
L1	-4.50E+05	4.31E+05	-4.48E+05	4.29E+05
L3	-2.36E+05	2.76E+05	-2.31E+05	2.74E+05
L4	-2.25E+05	3.19E+05	-2.01E+05	2.92E+05
NF	—	—	—	—
NS	-3.01E+05	-9.13E+04	-2.85E+05	-9.88E+04

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-212. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

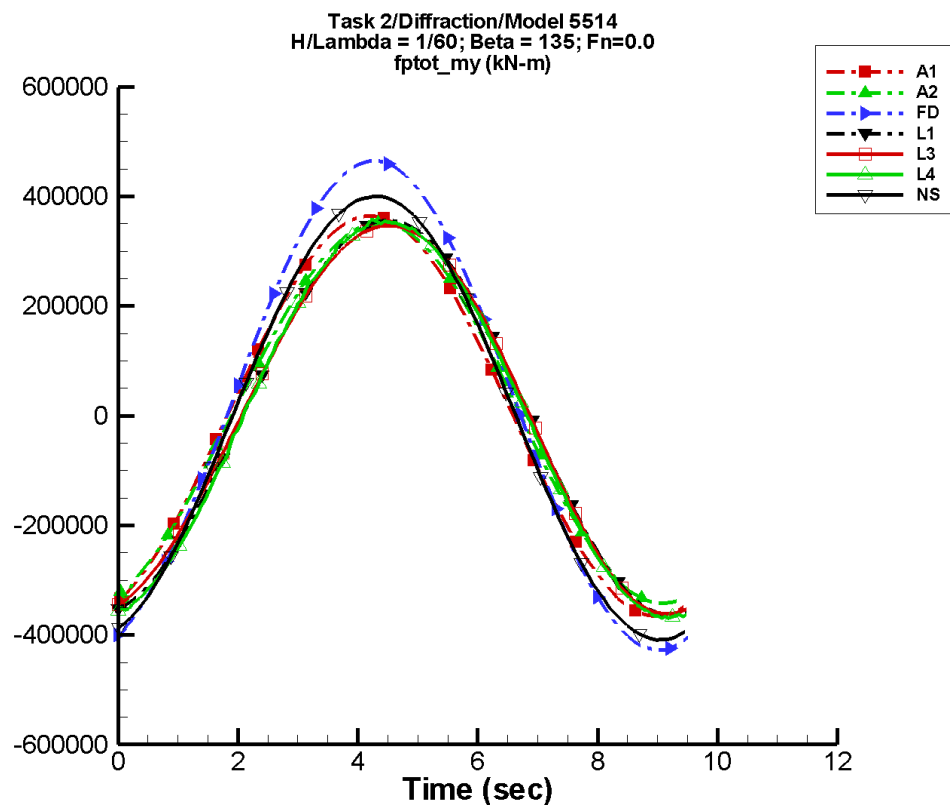
Table H-423. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.21E+03	6.06E+05	25	2.17E+03	-4
A2	-1.90E+05	1.05E+07	88	5.26E+06	168
FD	1.09E+04	4.12E+05	110	1.56E+05	78
L1	-2.98E+04	6.55E+05	11	2.90E+04	-144
L3	-2.77E+04	2.18E+05	117	7.33E+04	115
L4	-2.28E+05	5.39E+05	-175	5.86E+05	109
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-424. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.02E+05	6.02E+05	-5.96E+05	5.98E+05
A2	-1.01E+06	-9.78E+05	-1.01E+06	-9.78E+05
FD	-5.39E+05	5.36E+05	-5.13E+05	5.08E+05
L1	-6.84E+05	6.41E+05	-6.82E+05	6.38E+05
L3	-3.70E+05	2.61E+05	-3.64E+05	2.54E+05
L4	-7.18E+06	1.60E+06	-2.49E+06	2.75E+05
NF	—	—	—	—
NS	—	—	—	—

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Data identically zero, insufficient, or not available from NFA.

Figure H-213. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-425. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

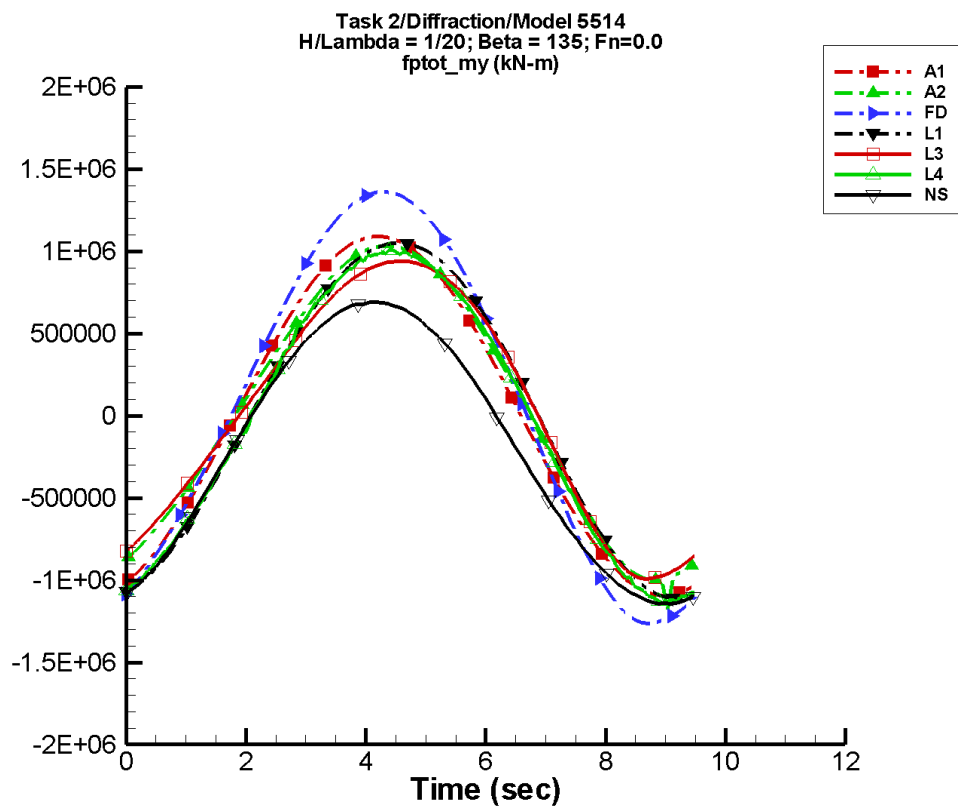
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	9.38	3.63E+05	-74	239.	-51
A2	5.55E+03	3.46E+05	-78	3.65E+03	-3
FD	1.93E+04	4.46E+05	-77	2.68E+03	24
L1	-1.16E+03	3.60E+05	-83	3.56E+03	-25
L3	-616.	3.53E+05	-82	1.02E+04	-14
L4	-6.63E+03	3.63E+05	-82	511.	-66
NF	—	—	—	—	—
NS	-5.71E+03	4.06E+05	-72	1.08E+03	117

Table H-426. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.65E+05	3.64E+05	-3.61E+05	3.60E+05
A2	-3.42E+05	3.52E+05	-3.38E+05	3.48E+05
FD	-4.28E+05	4.65E+05	-4.23E+05	4.66E+05
L1	-3.64E+05	3.56E+05	-3.63E+05	3.58E+05
L3	-3.62E+05	3.47E+05	-3.60E+05	3.48E+05
L4	-3.69E+05	3.58E+05	-3.66E+05	3.56E+05
NF	—	—	—	—
NS	-4.09E+05	4.01E+05	-4.05E+05	3.96E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-214. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

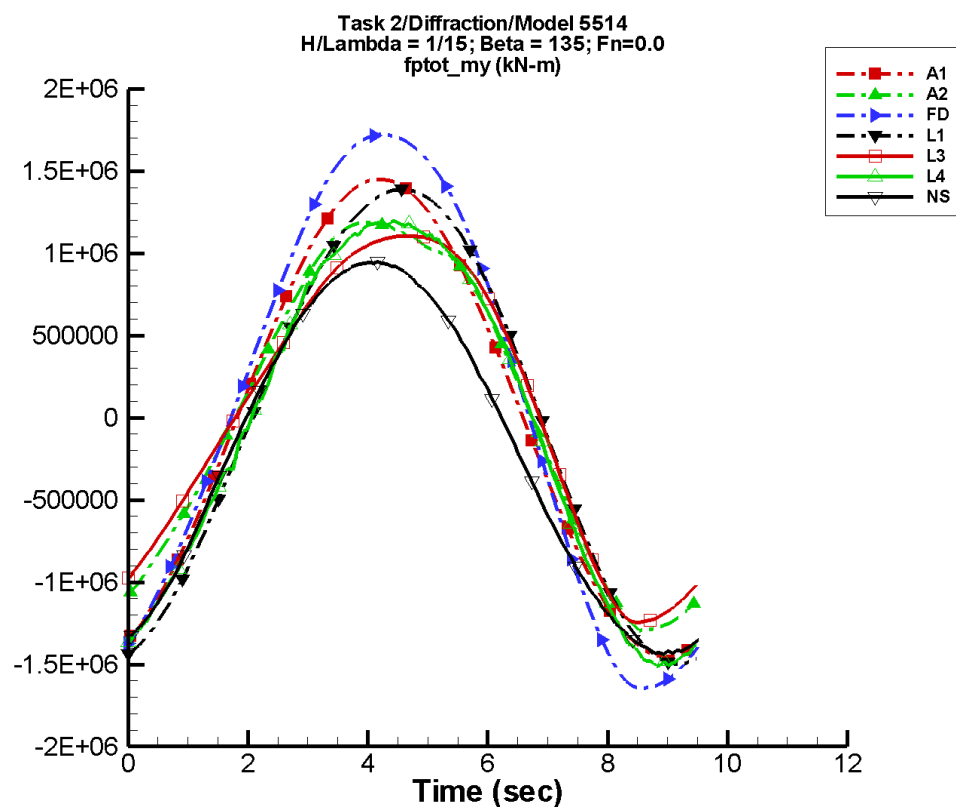
Table H-427. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	28.1	1.09E+06	-74	715.	-51
A2	3.50E+04	9.94E+05	-76	4.96E+04	11
FD	6.65E+04	1.29E+06	-74	6.11E+04	29
L1	-9.44E+03	1.08E+06	-83	3.12E+04	-27
L3	2.84E+04	9.41E+05	-78	1.02E+05	6
L4	-3.98E+04	1.05E+06	-80	2.73E+04	-3
NF	—	—	—	—	—
NS	-2.16E+05	9.18E+05	-67	1.70E+04	-89

Table H-428. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.09E+06	1.09E+06	-1.08E+06	1.08E+06
A2	-1.18E+06	1.03E+06	-1.00E+06	1.02E+06
FD	-1.26E+06	1.36E+06	-1.24E+06	1.36E+06
L1	-1.11E+06	1.05E+06	-1.11E+06	1.05E+06
L3	-9.91E+05	9.39E+05	-9.85E+05	9.38E+05
L4	-1.14E+06	1.01E+06	-1.12E+06	1.01E+06
NF	—	—	—	—
NS	-1.14E+06	6.92E+05	-1.13E+06	6.82E+05

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Data identically zero, insufficient, or not available from NFA.

Figure H-215. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

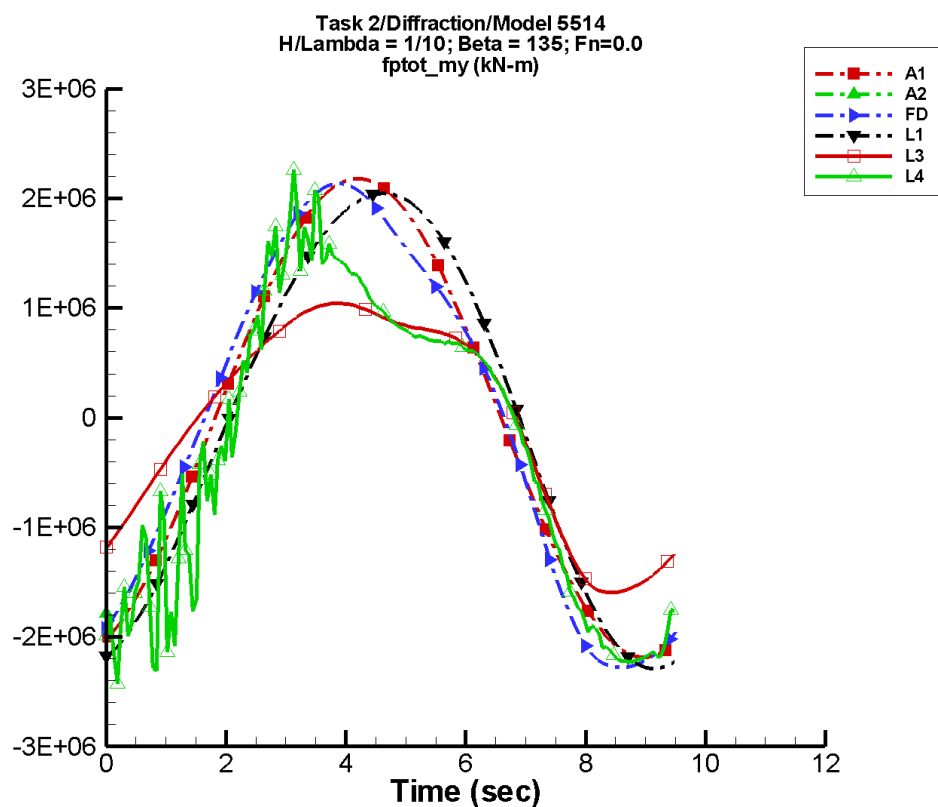
Table H-429. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	37.2	1.45E+06	-74	952.	-51
A2	3.00E+04	1.23E+06	-75	7.97E+04	-14
FD	8.95E+04	1.68E+06	-74	1.01E+05	19
L1	-1.66E+04	1.44E+06	-83	5.53E+04	-27
L3	3.99E+04	1.15E+06	-76	1.62E+05	2
L4	-7.55E+04	1.34E+06	-78	7.07E+04	-20
NF	—	—	—	—	—
NS	-2.23E+05	1.19E+06	-66	3.23E+04	-87

Table H-430. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.45E+06	1.45E+06	-1.44E+06	1.43E+06
A2	-1.30E+06	1.19E+06	-1.27E+06	1.18E+06
FD	-1.65E+06	1.72E+06	-1.62E+06	1.73E+06
L1	-1.50E+06	1.39E+06	-1.49E+06	1.39E+06
L3	-1.24E+06	1.11E+06	-1.24E+06	1.10E+06
L4	-1.51E+06	1.20E+06	-1.49E+06	1.21E+06
NF	—	—	—	—
NS	-1.44E+06	9.47E+05	-1.43E+06	9.38E+05

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-216. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

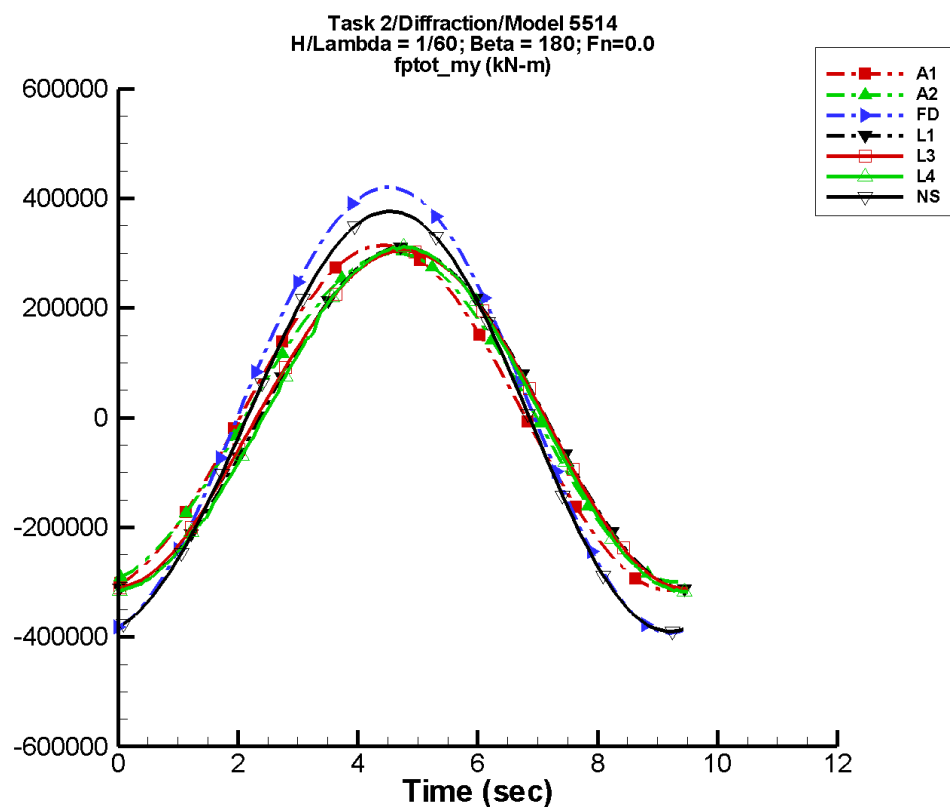
Table H-431. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	56.1	2.17E+06	-74	1.43E+03	-51
A2	-1.05E+07	3.80E+07	43	2.11E+07	-119
FD	3.17E+03	2.17E+06	-69	9.91E+04	-47
L1	-3.68E+04	2.16E+06	-83	1.24E+05	-27
L3	-4.09E+04	1.28E+06	-68	2.45E+05	-25
L4	-2.66E+05	1.84E+06	-75	3.02E+05	-124
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-432. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.18E+06	2.18E+06	-2.16E+06	2.16E+06
A2	-1.78E+06	-1.78E+06	-1.78E+06	-1.78E+06
FD	-2.28E+06	2.14E+06	-2.26E+06	2.13E+06
L1	-2.29E+06	2.05E+06	-2.28E+06	2.04E+06
L3	-1.59E+06	1.05E+06	-1.59E+06	1.04E+06
L4	-2.49E+06	2.26E+06	-2.22E+06	1.74E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-217. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-433. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

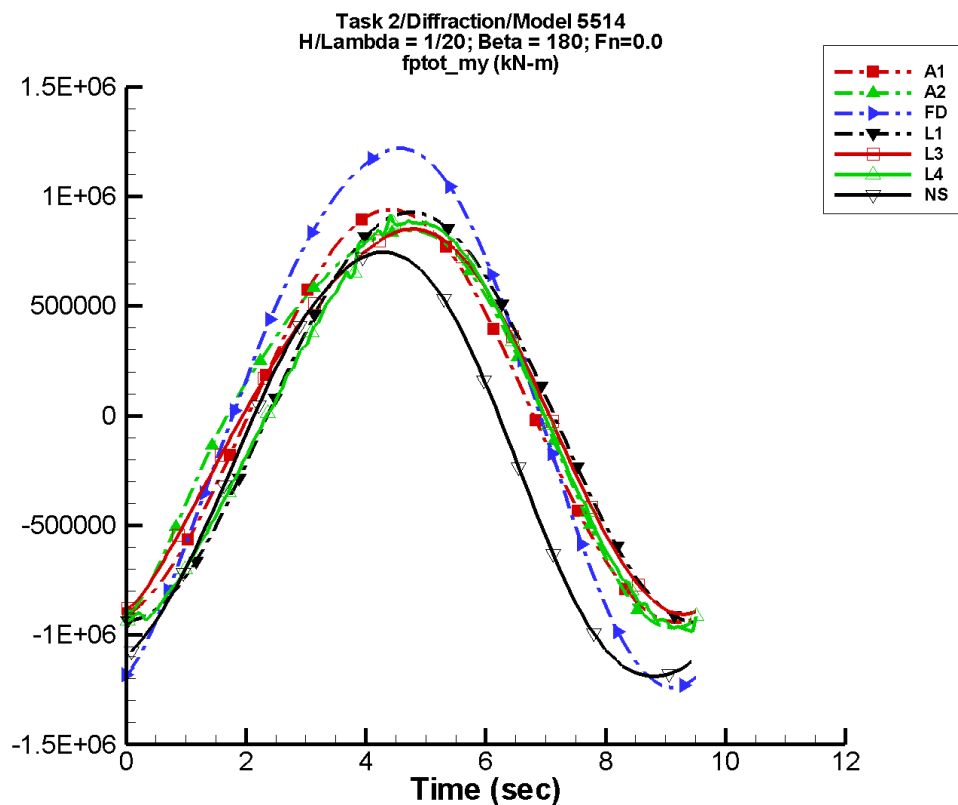
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	80.4	3.13E+05	-82	170.	-82
A2	5.80E+03	2.98E+05	-87	6.12E+03	-43
FD	1.92E+04	4.06E+05	-84	7.54E+03	-38
L1	-153.	3.12E+05	-93	447.	-108
L3	254.	3.08E+05	-92	5.25E+03	-53
L4	-7.02E+03	3.13E+05	-93	5.90E+03	51
NF	—	—	—	—	—
NS	-6.61E+03	3.84E+05	-80	5.83E+03	27

Table H-434. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.15E+05	3.14E+05	-3.11E+05	3.11E+05
A2	-2.99E+05	3.00E+05	-2.96E+05	2.97E+05
FD	-3.93E+05	4.21E+05	-3.88E+05	4.16E+05
L1	-3.13E+05	3.11E+05	-3.12E+05	3.10E+05
L3	-3.12E+05	3.05E+05	-3.11E+05	3.04E+05
L4	-3.18E+05	3.11E+05	-3.16E+05	3.09E+05
NF	—	—	—	—
NS	-3.90E+05	3.77E+05	-3.86E+05	3.73E+05



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Data identically zero, insufficient, or not available from NFA.

Figure H-218. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

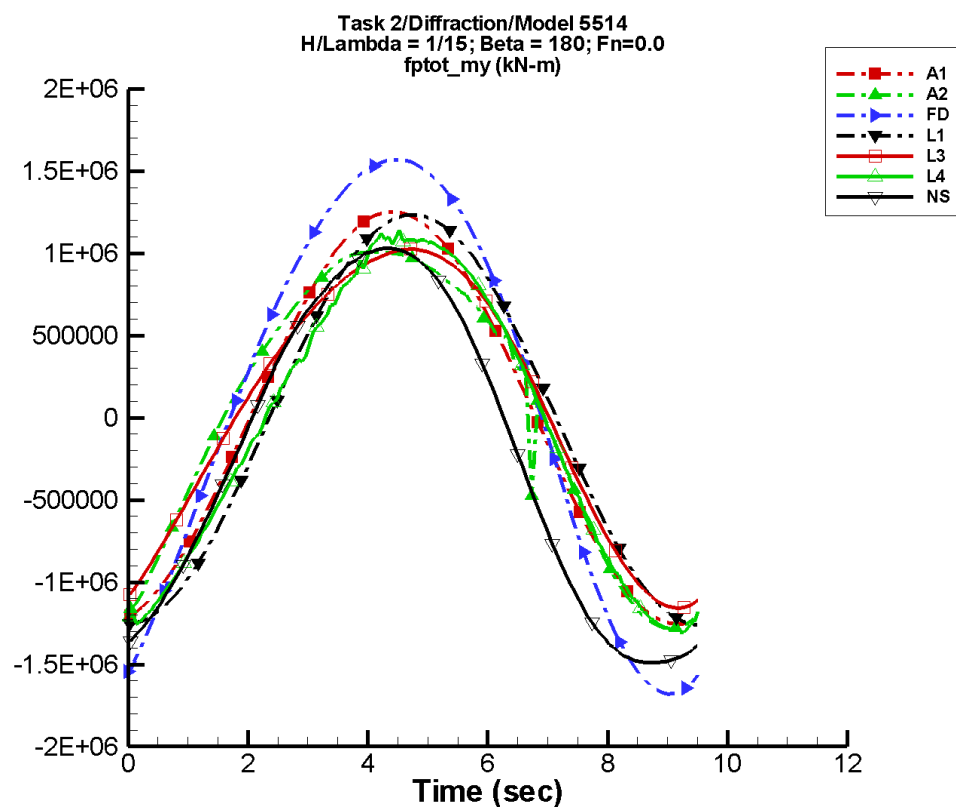
Table H-435. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	241.	9.38E+05	-82	508.	-82
A2	3.38E+04	8.95E+05	-80	1.23E+05	-48
FD	6.46E+04	1.22E+06	-80	9.55E+04	-39
L1	-1.64E+03	9.35E+05	-93	4.64E+03	-106
L3	3.41E+04	8.53E+05	-85	8.23E+04	-41
L4	-3.99E+04	9.22E+05	-90	3.84E+04	2
NF	—	—	—	—	—
NS	-2.28E+05	9.81E+05	-67	3.05E+04	52

Table H-436. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.42E+05	9.40E+05	-9.32E+05	9.29E+05
A2	-9.72E+05	8.46E+05	-9.51E+05	8.39E+05
FD	-1.24E+06	1.22E+06	-1.22E+06	1.21E+06
L1	-9.43E+05	9.28E+05	-9.40E+05	9.24E+05
L3	-9.06E+05	8.51E+05	-9.01E+05	8.48E+05
L4	-9.87E+05	9.18E+05	-9.63E+05	8.81E+05
NF	—	—	—	—
NS	-1.19E+06	7.45E+05	-1.18E+06	7.35E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-219. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

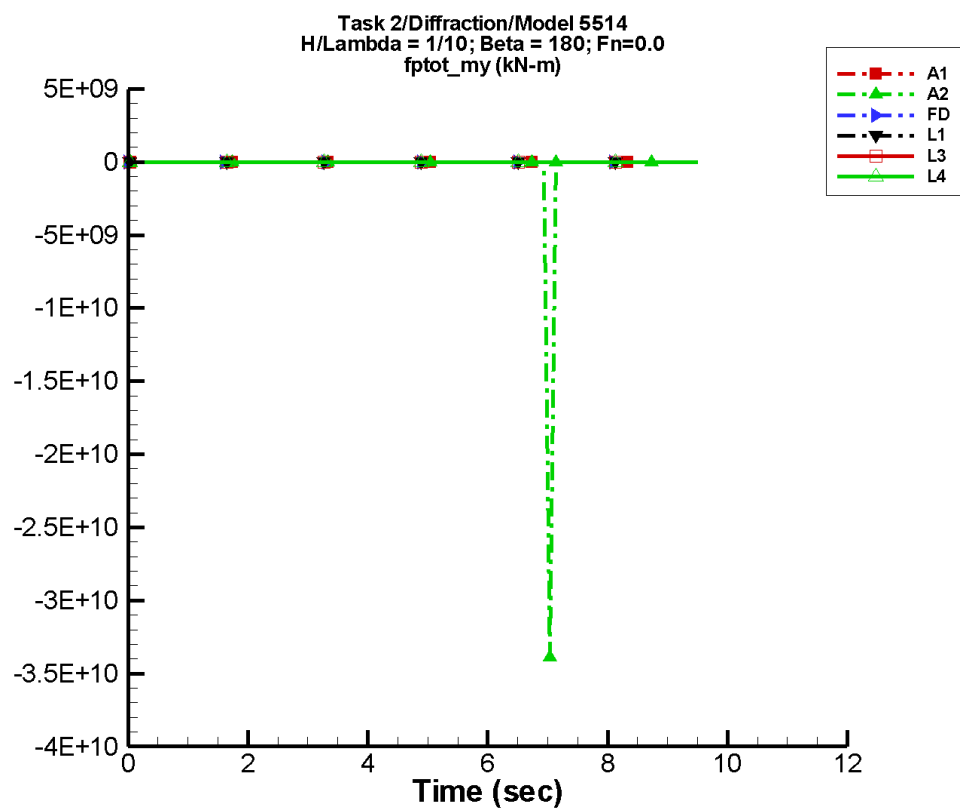
Table H-437. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	320.	1.25E+06	-82	677.	-82
A2	2.61E+04	1.12E+06	-75	1.65E+05	-56
FD	8.90E+04	1.60E+06	-78	1.59E+05	-37
L1	-2.97E+03	1.25E+06	-93	8.39E+03	-106
L3	5.15E+04	1.05E+06	-81	1.33E+05	-39
L4	-6.95E+04	1.18E+06	-88	7.15E+04	-12
NF	—	—	—	—	—
NS	-2.45E+05	1.29E+06	-67	5.62E+04	55

Table H-438. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.25E+06	1.25E+06	-1.24E+06	1.24E+06
A2	-1.28E+06	1.01E+06	-1.26E+06	1.00E+06
FD	-1.68E+06	1.57E+06	-1.66E+06	1.56E+06
L1	-1.26E+06	1.23E+06	-1.26E+06	1.23E+06
L3	-1.16E+06	1.02E+06	-1.15E+06	1.02E+06
L4	-1.30E+06	1.14E+06	-1.28E+06	1.09E+06
NF	—	—	—	—
NS	-1.49E+06	1.03E+06	-1.49E+06	1.02E+06

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-220. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

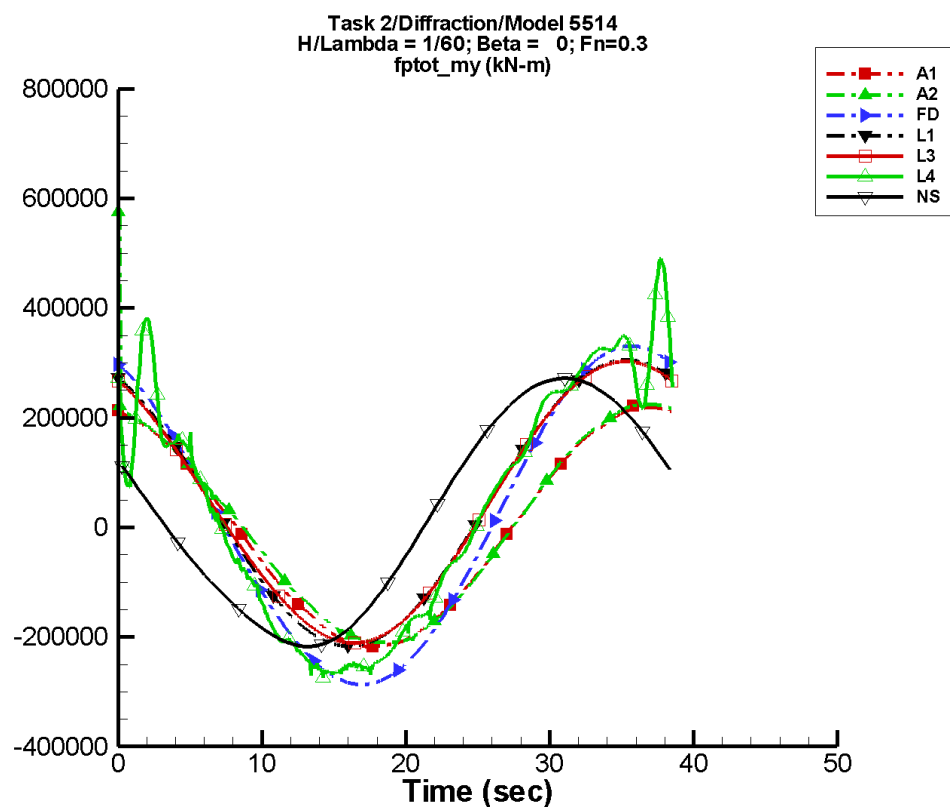
Table H-439. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	481.	1.88E+06	-82	1.02E+03	-82
A2	-3.73E+08	7.14E+08	-4	6.53E+08	91
FD	-553.	2.17E+06	-69	1.92E+05	-43
L1	-6.81E+03	1.87E+06	-93	1.92E+04	-106
L3	-1.53E+04	1.24E+06	-67	1.54E+05	-48
L4	-2.15E+05	1.55E+06	-80	3.14E+04	-27
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-440. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.88E+06	1.88E+06	-1.86E+06	1.86E+06
A2	-3.39E+10	2.27E+06	-4.52E+09	3.87E+08
FD	-2.45E+06	1.97E+06	-2.41E+06	1.99E+06
L1	-1.90E+06	1.84E+06	-1.89E+06	1.84E+06
L3	-1.49E+06	1.06E+06	-1.48E+06	1.06E+06
L4	-2.53E+06	1.63E+06	-1.84E+06	1.40E+06
NF	—	—	—	—
NS	—	—	—	—

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Data identically zero, insufficient, or not available from NFA.

Figure H-221. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-441. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

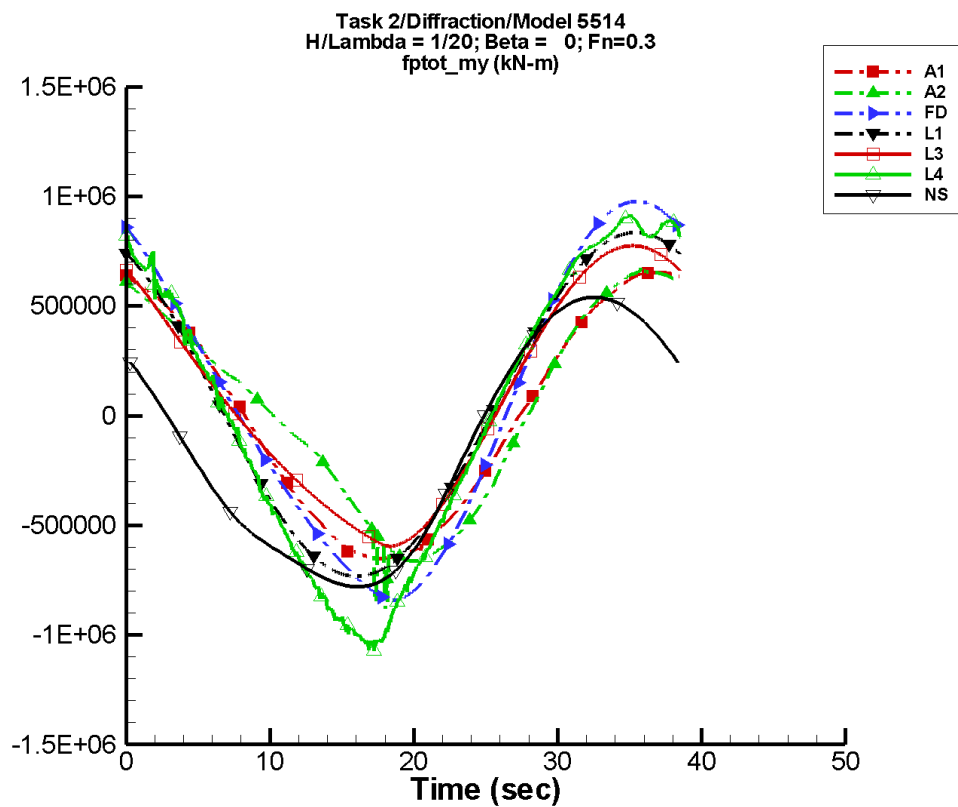
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	224.	2.18E+05	109	1.22E+03	-151
A2	5.92E+03	2.16E+05	107	7.62E+03	-148
FD	1.99E+04	3.08E+05	121	7.22E+03	-136
L1	4.46E+04	2.61E+05	122	589.	51
L3	4.49E+04	2.56E+05	122	4.22E+03	-133
L4	3.63E+04	2.98E+05	123	1.11E+04	35
NF	—	—	—	—	—
NS	2.12E+04	2.45E+05	158	9.97E+03	-76

Table H-442. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.18E+05	2.22E+05	-2.17E+05	2.18E+05
A2	-2.09E+05	2.28E+05	-2.09E+05	2.24E+05
FD	-2.87E+05	3.31E+05	-2.87E+05	3.30E+05
L1	-2.17E+05	3.06E+05	-2.17E+05	3.06E+05
L3	-2.11E+05	3.03E+05	-2.11E+05	3.02E+05
L4	-2.74E+05	4.93E+05	-2.65E+05	4.81E+05
NF	—	—	—	—
NS	-2.30E+05	2.72E+05	-2.23E+05	2.69E+05



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Data identically zero, insufficient, or not available from NFA.

Figure H-222. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

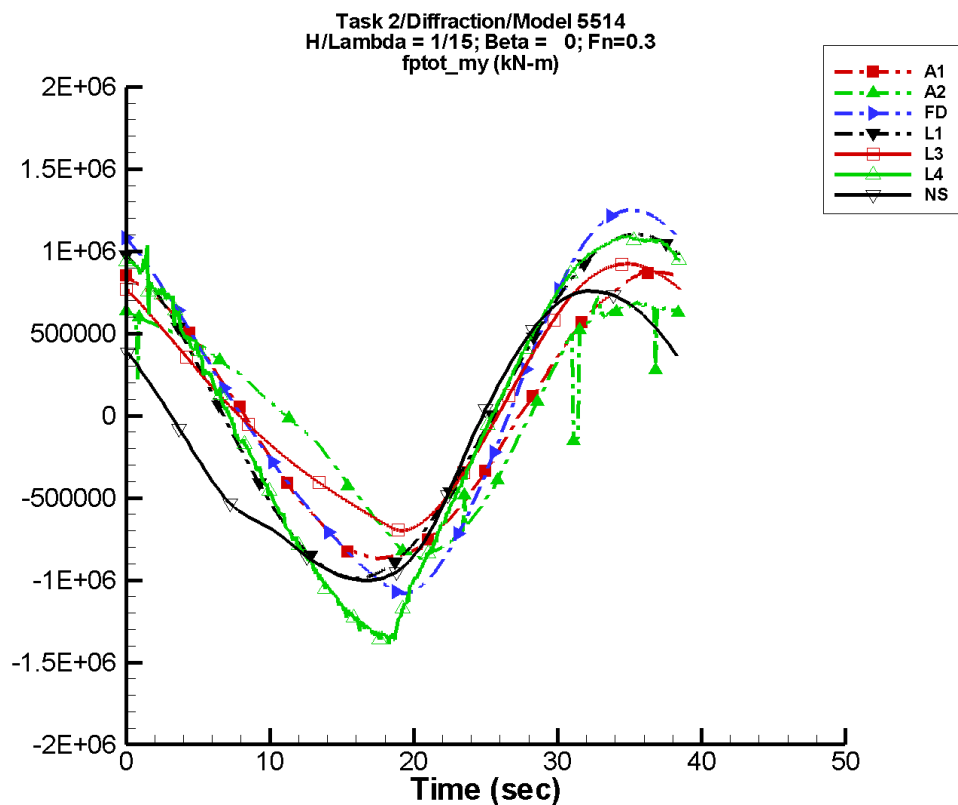
Table H-443. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	669.	6.52E+05	109	3.64E+03	-151
A2	3.27E+04	6.11E+05	99	1.20E+05	-143
FD	6.66E+04	8.75E+05	117	9.19E+04	-135
L1	5.09E+04	7.84E+05	122	5.59E+03	76
L3	8.65E+04	6.53E+05	117	7.28E+04	-142
L4	1.51E+04	9.09E+05	121	6.34E+04	-32
NF	—	—	—	—	—
NS	-1.56E+05	6.70E+05	141	6.08E+04	-128

Table H-444. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.51E+05	6.64E+05	-6.51E+05	6.53E+05
A2	-8.80E+05	6.75E+05	-6.81E+05	6.59E+05
FD	-8.42E+05	9.77E+05	-8.41E+05	9.76E+05
L1	-7.32E+05	8.36E+05	-7.32E+05	8.35E+05
L3	-5.95E+05	7.75E+05	-5.95E+05	7.75E+05
L4	-1.07E+06	9.18E+05	-1.04E+06	9.10E+05
NF	—	—	—	—
NS	-7.80E+05	5.40E+05	-7.74E+05	5.32E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-223. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

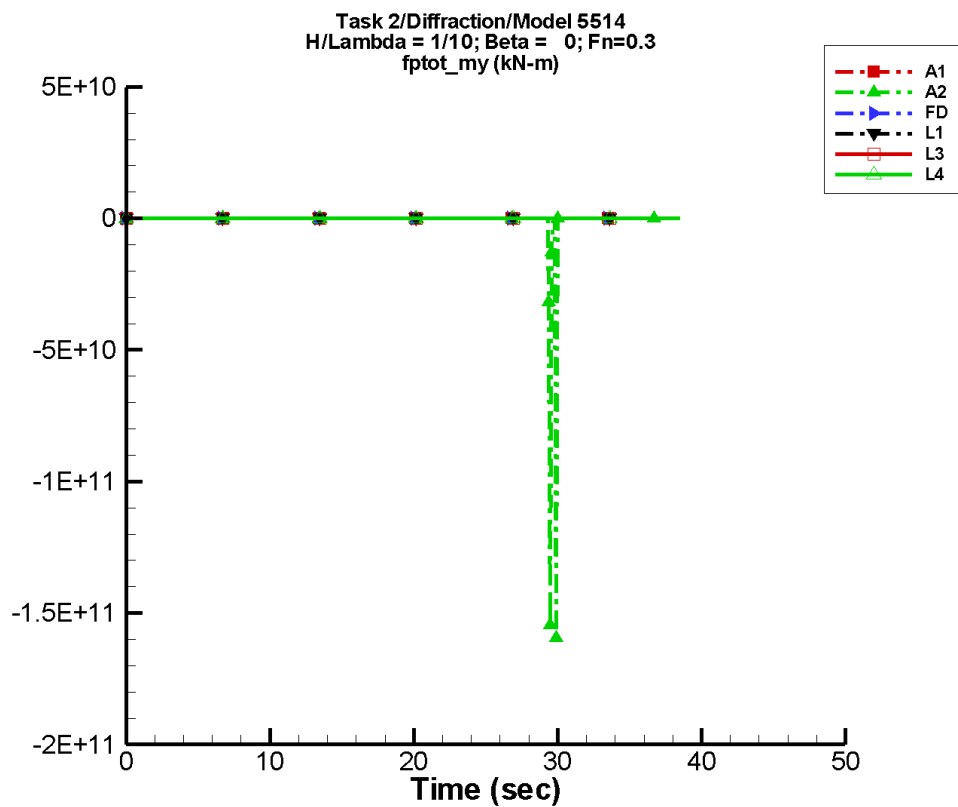
Table H-445. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	891.	8.68E+05	109	4.84E+03	-151
A2	2.44E+04	7.06E+05	93	1.61E+05	-131
FD	9.09E+04	1.12E+06	116	1.59E+05	-138
L1	5.60E+04	1.05E+06	122	1.01E+04	79
L3	1.10E+05	7.64E+05	116	1.20E+05	-144
L4	1.09E+04	1.16E+06	120	1.07E+05	-55
NF	—	—	—	—	—
NS	-1.73E+05	8.89E+05	139	1.14E+05	-126

Table H-446. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.67E+05	8.83E+05	-8.66E+05	8.70E+05
A2	-8.73E+05	7.19E+05	-8.52E+05	6.83E+05
FD	-1.08E+06	1.25E+06	-1.08E+06	1.25E+06
L1	-9.87E+05	1.10E+06	-9.86E+05	1.10E+06
L3	-6.99E+05	9.24E+05	-6.98E+05	9.23E+05
L4	-1.39E+06	1.10E+06	-1.35E+06	1.09E+06
NF	—	—	—	—
NS	-1.00E+06	7.58E+05	-9.98E+05	7.53E+05

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-224. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

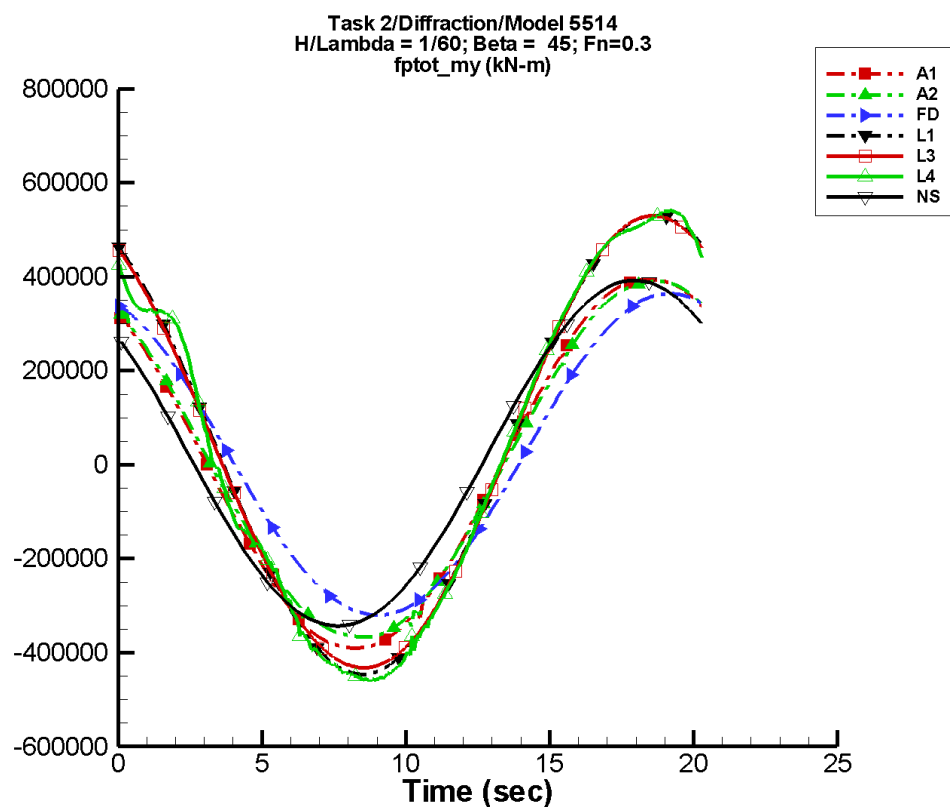
Table H-447. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.34E+03	1.30E+06	109	7.27E+03	-151
A2	-9.77E+08	1.89E+09	-6	1.66E+09	87
FD	-604.	1.27E+06	109	1.97E+05	-130
L1	7.04E+04	1.57E+06	122	2.33E+04	82
L3	5.89E+04	6.60E+05	112	1.28E+05	-140
L4	-3.68E+04	1.49E+06	116	2.75E+05	-58
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-448. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.30E+06	1.33E+06	-1.30E+06	1.31E+06
A2	-1.59E+11	2.03E+06	-4.02E+10	1.74E+09
FD	-1.40E+06	1.28E+06	-1.40E+06	1.28E+06
L1	-1.49E+06	1.64E+06	-1.49E+06	1.64E+06
L3	-6.90E+05	7.62E+05	-6.90E+05	7.61E+05
L4	-2.47E+06	1.30E+06	-2.02E+06	1.27E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-225. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-449. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

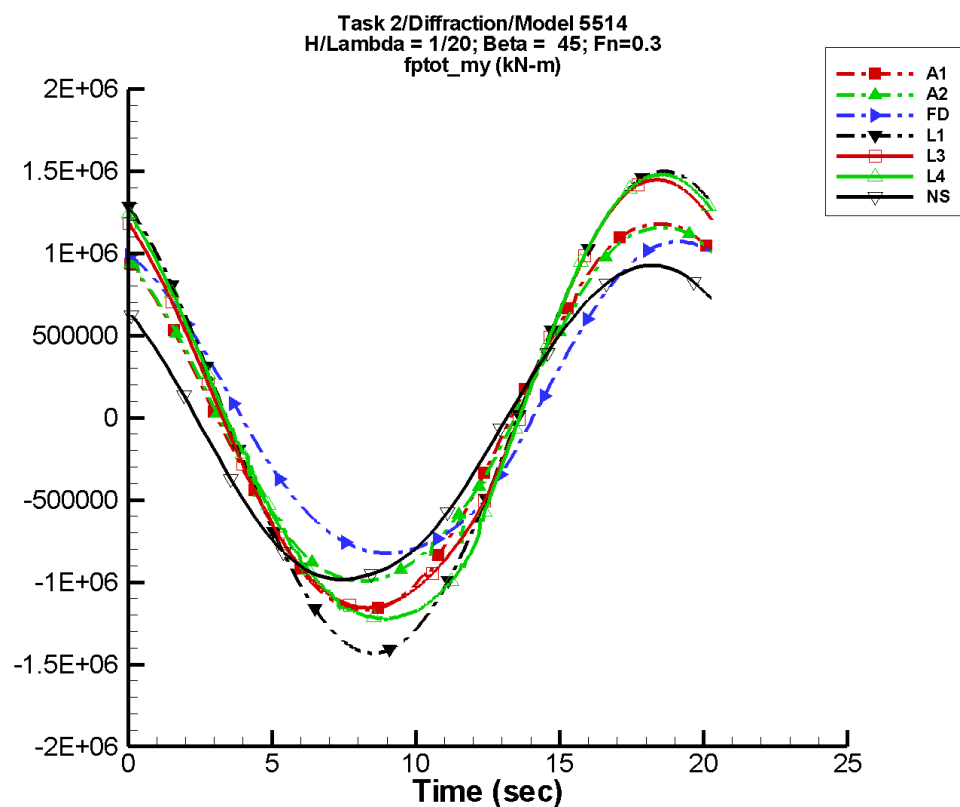
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.00E+03	3.95E+05	116	706.	137
A2	6.51E+03	3.81E+05	114	4.48E+03	133
FD	1.89E+04	3.43E+05	100	2.79E+03	115
L1	4.14E+04	4.88E+05	116	1.71E+03	-165
L3	4.19E+04	4.82E+05	117	8.35E+03	179
L4	3.52E+04	4.89E+05	117	7.15E+03	-107
NF	—	—	—	—	—
NS	2.01E+04	3.68E+05	133	4.07E+03	163

Table H-450. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.90E+05	3.94E+05	-3.89E+05	3.93E+05
A2	-3.67E+05	3.90E+05	-3.66E+05	3.89E+05
FD	-3.20E+05	3.64E+05	-3.19E+05	3.63E+05
L1	-4.46E+05	5.30E+05	-4.46E+05	5.30E+05
L3	-4.32E+05	5.30E+05	-4.32E+05	5.29E+05
L4	-4.62E+05	5.41E+05	-4.58E+05	5.39E+05
NF	—	—	—	—
NS	-3.44E+05	3.92E+05	-3.40E+05	3.89E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-226. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

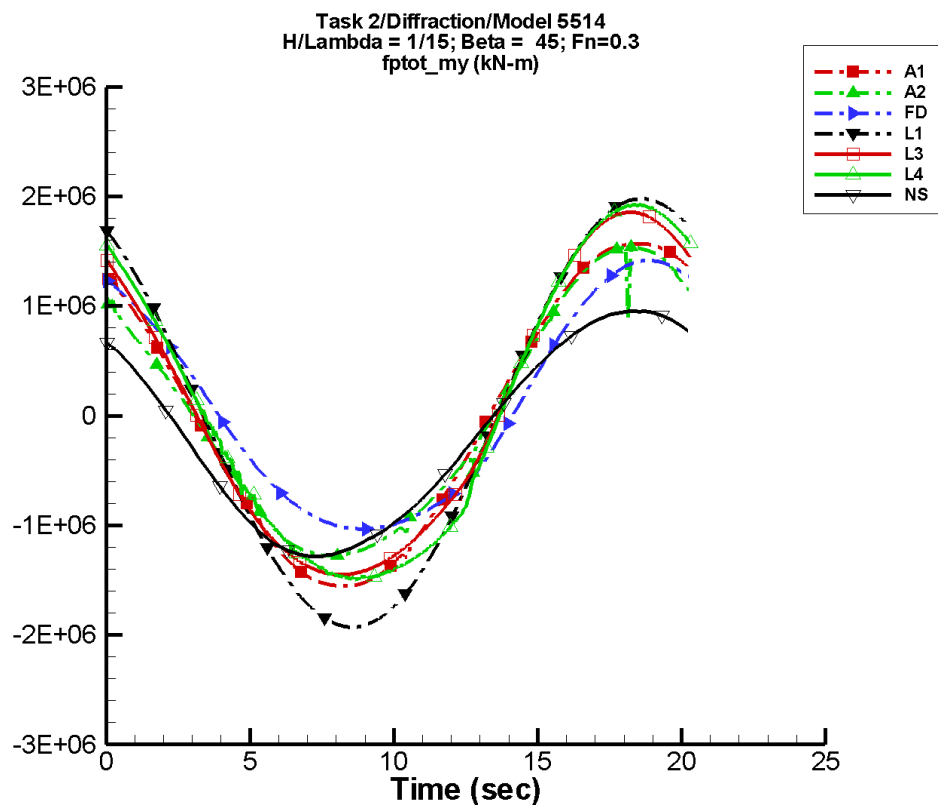
Table H-451. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.00E+03	1.18E+06	116	2.11E+03	137
A2	3.82E+04	1.09E+06	114	4.87E+04	128
FD	6.50E+04	9.66E+05	99	5.95E+04	119
L1	2.38E+04	1.46E+06	116	1.57E+04	-165
L3	6.12E+04	1.31E+06	118	8.91E+04	156
L4	5.87E+04	1.37E+06	115	9.37E+04	-178
NF	—	—	—	—	—
NS	-5.87E+04	9.66E+05	131	3.46E+04	129

Table H-452. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.17E+06	1.18E+06	-1.16E+06	1.18E+06
A2	-9.94E+05	1.16E+06	-9.92E+05	1.15E+06
FD	-8.23E+05	1.07E+06	-8.22E+05	1.07E+06
L1	-1.43E+06	1.50E+06	-1.43E+06	1.50E+06
L3	-1.16E+06	1.45E+06	-1.16E+06	1.45E+06
L4	-1.23E+06	1.48E+06	-1.22E+06	1.48E+06
NF	—	—	—	—
NS	-9.83E+05	9.28E+05	-9.77E+05	9.17E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-227. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

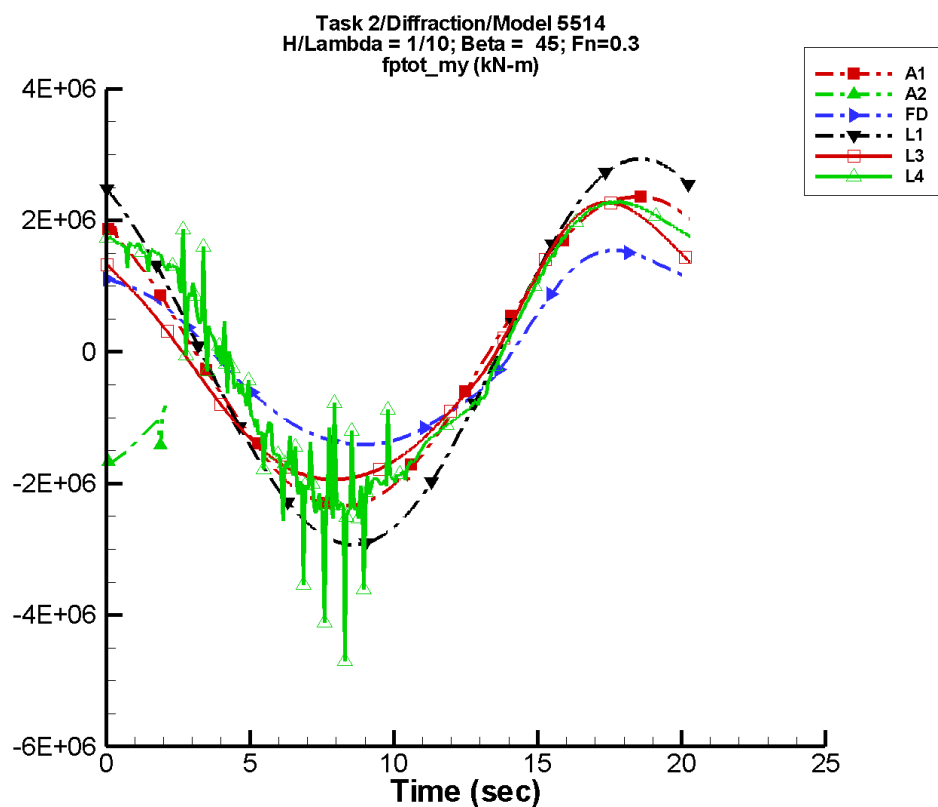
Table H-453. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.99E+03	1.57E+06	116	2.81E+03	137
A2	1.78E+04	1.38E+06	120	9.25E+04	165
FD	8.64E+04	1.23E+06	100	1.03E+05	131
L1	8.54E+03	1.95E+06	116	2.79E+04	-166
L3	6.38E+04	1.65E+06	120	1.38E+05	161
L4	8.85E+04	1.72E+06	115	1.54E+05	176
NF	—	—	—	—	—
NS	-1.66E+05	1.12E+06	131	5.76E+04	84

Table H-454. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.55E+06	1.57E+06	-1.55E+06	1.57E+06
A2	-1.29E+06	1.54E+06	-1.29E+06	1.51E+06
FD	-1.03E+06	1.42E+06	-1.03E+06	1.41E+06
L1	-1.93E+06	1.98E+06	-1.93E+06	1.98E+06
L3	-1.45E+06	1.86E+06	-1.45E+06	1.85E+06
L4	-1.50E+06	1.92E+06	-1.48E+06	1.92E+06
NF	—	—	—	—
NS	-1.28E+06	9.53E+05	-1.28E+06	9.48E+05

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-228. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

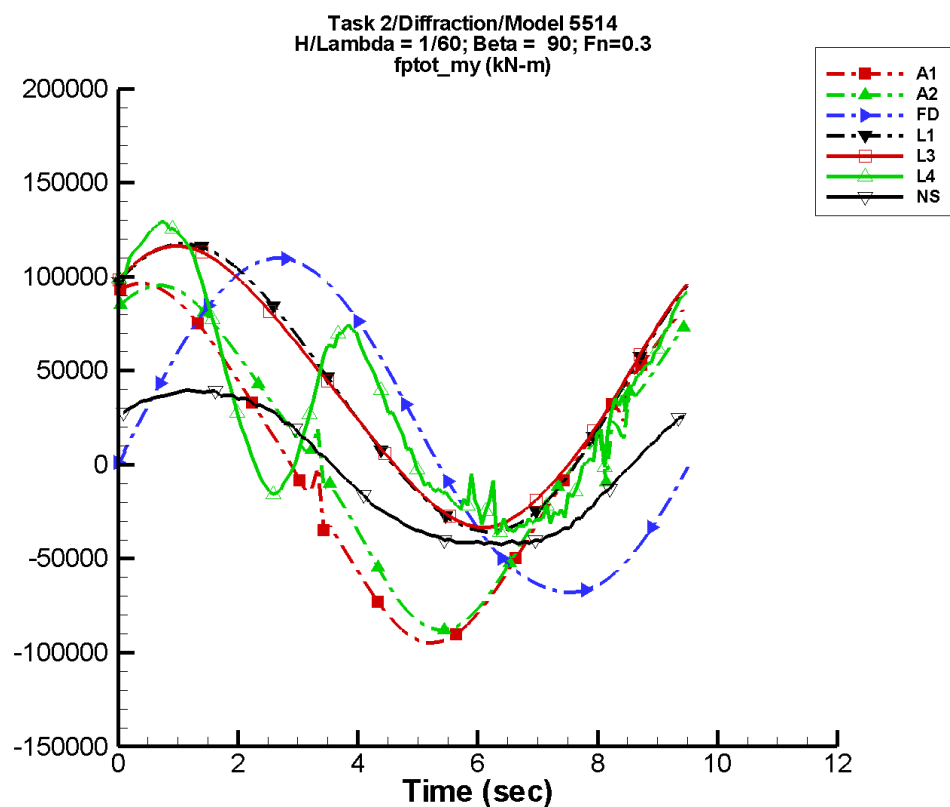
Table H-455. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.99E+03	2.36E+06	116	4.22E+03	137
A2	-1.72E+06	1.26E+06	106	1.23E+06	-72
FD	-707.	1.47E+06	104	1.16E+05	-162
L1	-3.51E+04	2.93E+06	116	6.27E+04	-166
L3	-4.17E+04	2.06E+06	126	1.85E+05	-167
L4	7.71E+04	2.27E+06	114	1.61E+05	-37
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-456. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.33E+06	2.36E+06	-2.33E+06	2.35E+06
A2	-1.87E+06	-1.42E+05	-1.70E+06	-1.55E+05
FD	-1.41E+06	1.54E+06	-1.40E+06	1.54E+06
L1	-2.93E+06	2.93E+06	-2.93E+06	2.93E+06
L3	-1.94E+06	2.27E+06	-1.94E+06	2.27E+06
L4	-4.80E+06	2.28E+06	-2.63E+06	2.28E+06
NF	—	—	—	—
NS	—	—	—	—

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Data identically zero, insufficient, or not available from NFA.

Figure H-229. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-457. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

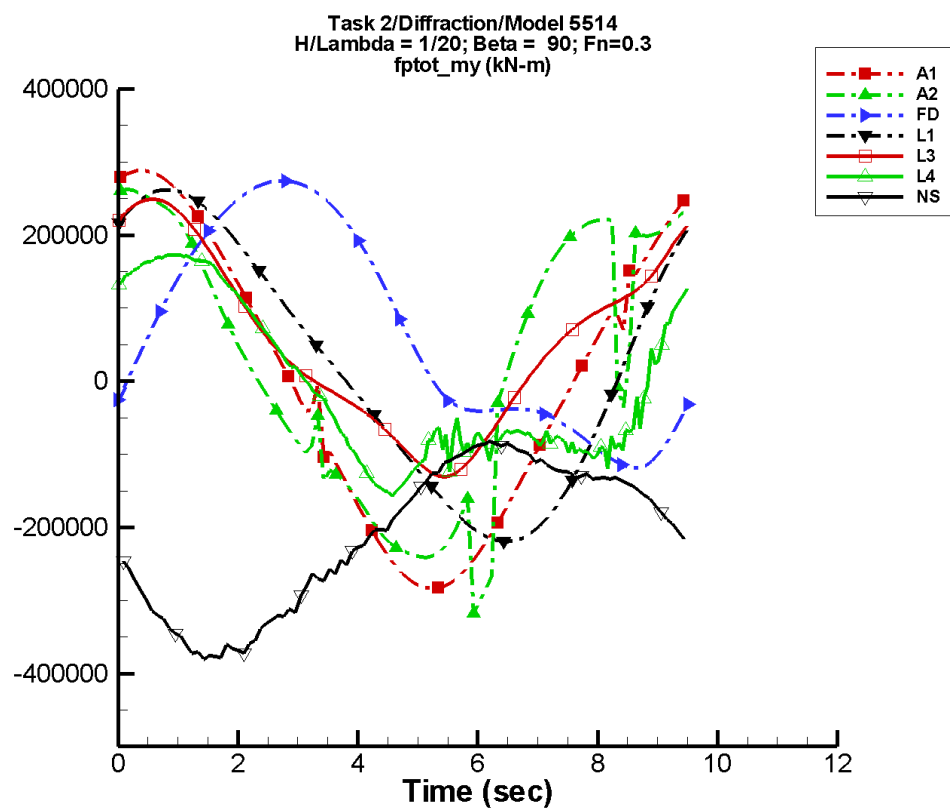
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	432.	8.99E+04	67	251.	-51
A2	6.02E+03	8.45E+04	58	3.26E+03	-89
FD	1.93E+04	8.97E+04	-16	1.50E+03	-101
L1	4.08E+04	7.61E+04	39	4.39E+03	75
L3	4.14E+04	7.31E+04	42	4.81E+03	78
L4	3.34E+04	5.40E+04	48	3.85E+04	84
NF	—	—	—	—	—
NS	-2.54E+03	4.35E+04	40	1.57E+03	17

Table H-458. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.49E+04	9.63E+04	-9.35E+04	9.51E+04
A2	-8.81E+04	9.53E+04	-8.65E+04	9.39E+04
FD	-6.80E+04	1.10E+05	-6.72E+04	1.09E+05
L1	-3.57E+04	1.18E+05	-3.54E+04	1.17E+05
L3	-3.34E+04	1.16E+05	-3.30E+04	1.16E+05
L4	-3.68E+04	1.29E+05	-3.31E+04	1.27E+05
NF	—	—	—	—
NS	-4.24E+04	4.28E+04	-4.17E+04	4.20E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-230. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

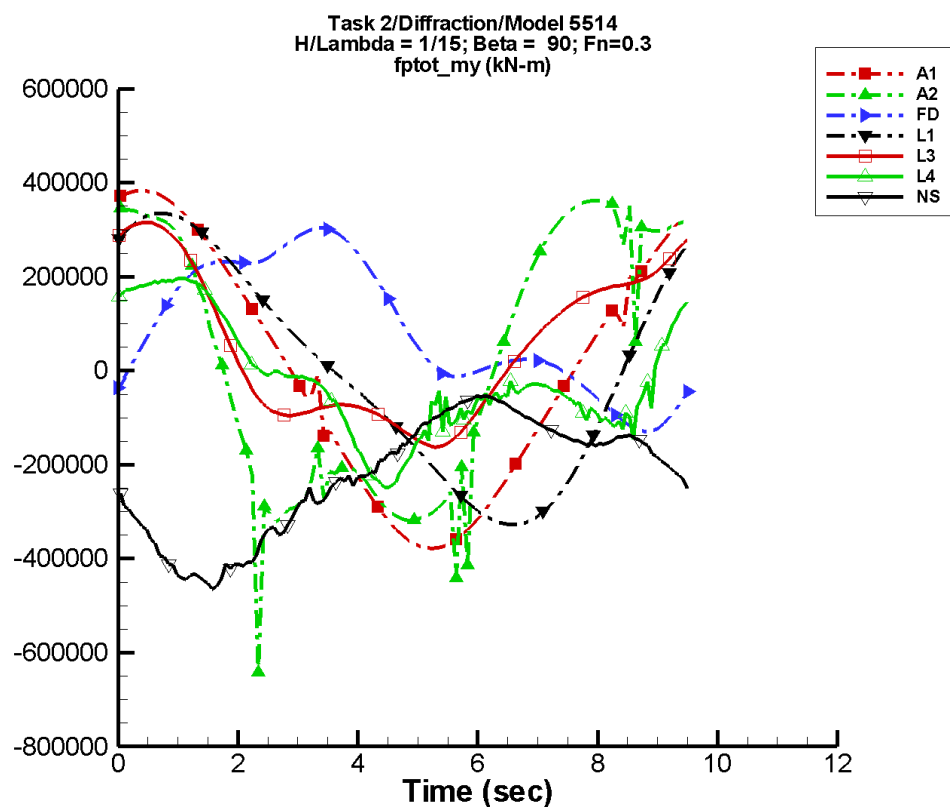
Table H-459. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.29E+03	2.69E+05	67	750.	-51
A2	2.72E+04	2.46E+05	90	2.39E+04	-109
FD	6.65E+04	1.85E+05	-21	3.94E+04	-101
L1	1.91E+04	2.28E+05	39	3.95E+04	75
L3	5.76E+04	1.64E+05	72	5.63E+03	66
L4	-5.51E+03	1.35E+05	47	5.47E+04	-9
NF	—	—	—	—	—
NS	-2.13E+05	1.34E+05	-162	1.96E+04	139

Table H-460. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.84E+05	2.88E+05	-2.80E+05	2.84E+05
A2	-3.18E+05	6.09E+05	-2.34E+05	2.90E+05
FD	-1.19E+05	2.74E+05	-1.14E+05	2.72E+05
L1	-2.19E+05	2.62E+05	-2.18E+05	2.61E+05
L3	-1.31E+05	2.49E+05	-1.28E+05	2.47E+05
L4	-1.58E+05	1.73E+05	-1.49E+05	1.72E+05
NF	—	—	—	—
NS	-3.81E+05	-8.27E+04	-3.73E+05	-8.75E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-231. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

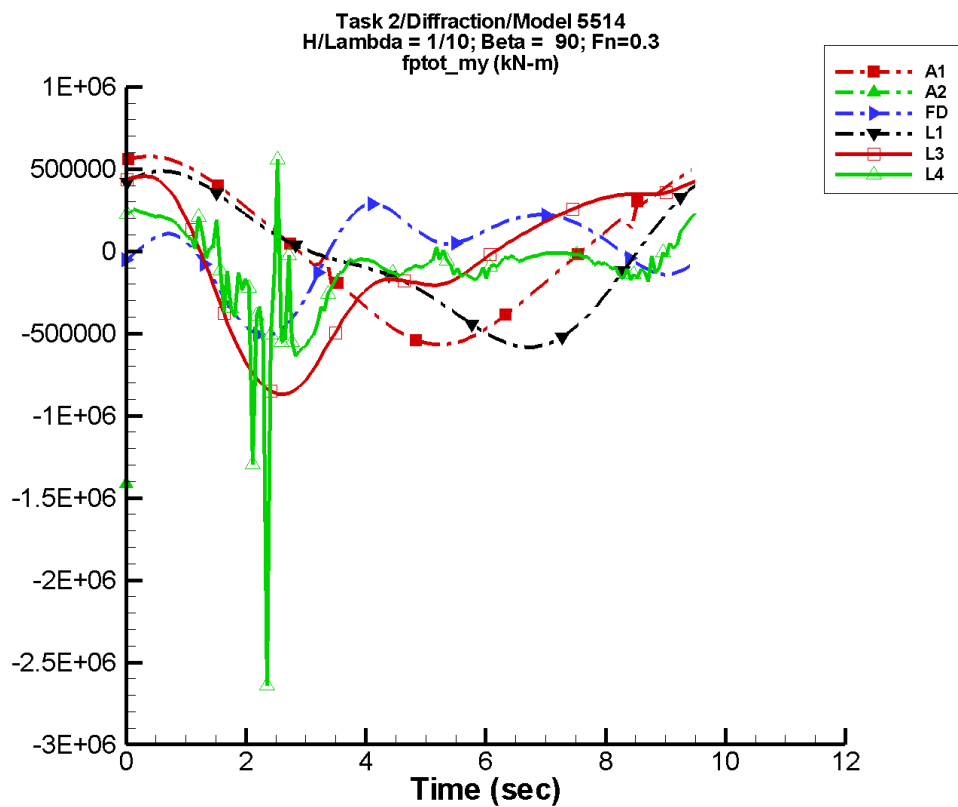
Table H-461. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.72E+03	3.58E+05	67	998.	-51
A2	2.74E+04	3.70E+05	111	8.19E+03	-3
FD	9.12E+04	1.76E+05	-28	3.88E+04	-101
L1	60.2	3.04E+05	39	7.02E+04	75
L3	5.89E+04	2.17E+05	94	3.12E+04	77
L4	-1.55E+04	1.40E+05	62	7.22E+04	-16
NF	—	—	—	—	—
NS	-2.26E+05	1.65E+05	-153	3.29E+04	144

Table H-462. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.78E+05	3.84E+05	-3.72E+05	3.79E+05
A2	-6.41E+05	3.62E+05	-3.24E+05	3.55E+05
FD	-1.30E+05	3.04E+05	-1.20E+05	2.97E+05
L1	-3.28E+05	3.35E+05	-3.26E+05	3.34E+05
L3	-1.62E+05	3.16E+05	-1.59E+05	3.13E+05
L4	-2.49E+05	1.97E+05	-2.38E+05	1.94E+05
NF	—	—	—	—
NS	-4.66E+05	-5.40E+04	-4.45E+05	-5.84E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-232. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

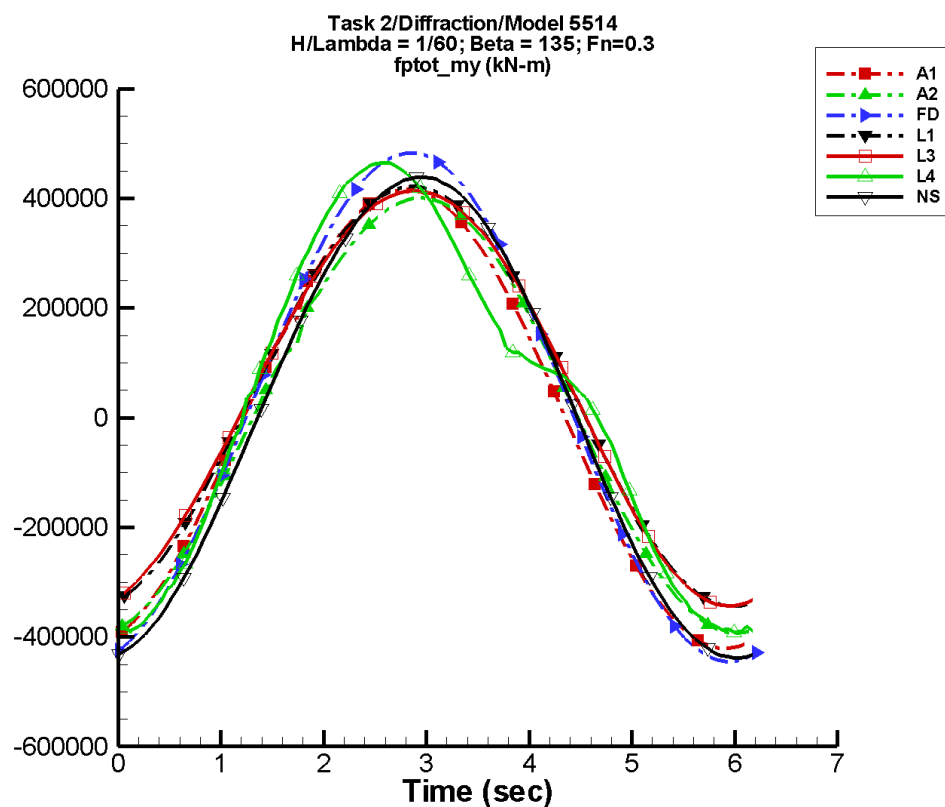
Table H-463. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.58E+03	5.38E+05	67	1.50E+03	-51
A2	-1.47E+06	1.88E+07	89	9.13E+06	177
FD	1.09E+04	2.06E+05	-156	1.56E+05	78
L1	-5.42E+04	4.57E+05	39	1.58E+05	75
L3	-5.20E+04	5.17E+05	137	2.38E+05	82
L4	-8.50E+04	1.80E+05	131	1.85E+05	66
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-464. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.68E+05	5.76E+05	-5.59E+05	5.69E+05
A2	-1.41E+06	-1.37E+06	-1.41E+06	-1.37E+06
FD	-5.13E+05	2.89E+05	-4.87E+05	2.81E+05
L1	-5.83E+05	4.88E+05	-5.79E+05	4.85E+05
L3	-8.69E+05	4.56E+05	-8.60E+05	4.50E+05
L4	-2.64E+06	7.95E+05	-6.80E+05	2.66E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-233. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-465. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

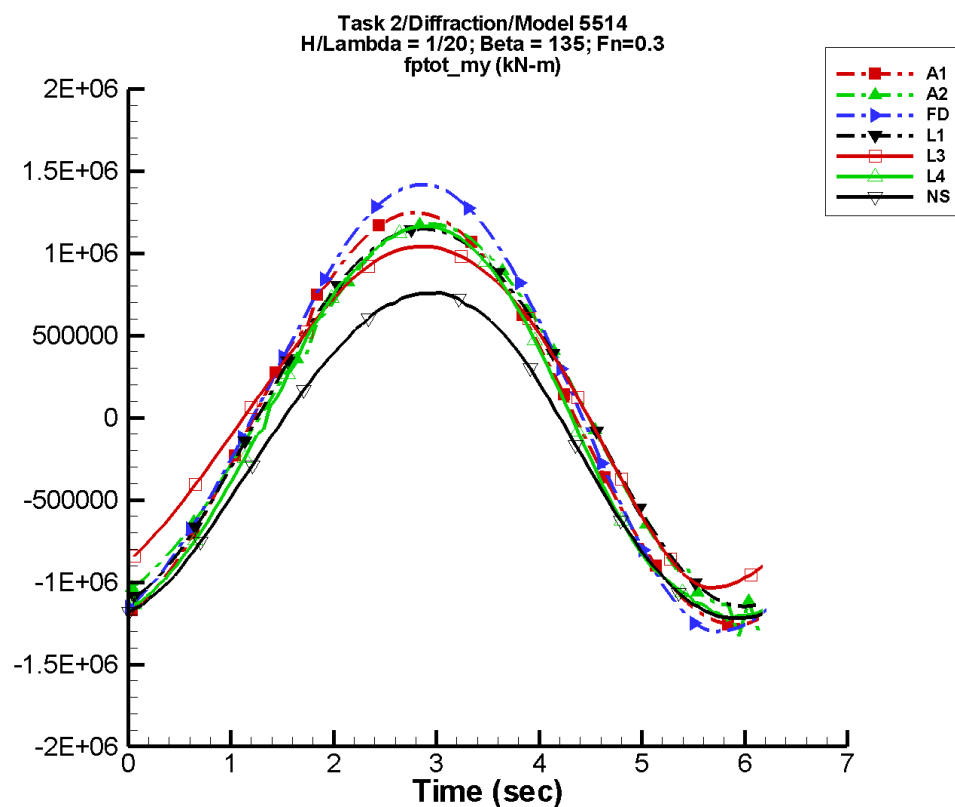
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-399.	4.19E+05	-78	1.88E+03	-49
A2	5.33E+03	3.97E+05	-85	4.99E+03	-17
FD	1.96E+04	4.64E+05	-96	2.79E+03	-16
L1	4.29E+04	3.83E+05	-86	4.00E+03	-91
L3	4.34E+04	3.77E+05	-85	9.35E+03	-48
L4	2.45E+04	4.01E+05	-82	7.11E+04	-159
NF	—	—	—	—	—
NS	-185.	4.41E+05	-79	3.86E+03	11

Table H-466. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.21E+05	4.16E+05	-4.09E+05	4.06E+05
A2	-3.93E+05	4.01E+05	-3.83E+05	3.91E+05
FD	-4.45E+05	4.83E+05	-4.33E+05	4.71E+05
L1	-3.44E+05	4.22E+05	-3.40E+05	4.18E+05
L3	-3.43E+05	4.13E+05	-3.40E+05	4.10E+05
L4	-3.97E+05	4.64E+05	-3.89E+05	4.58E+05
NF	—	—	—	—
NS	-4.39E+05	4.39E+05	-4.34E+05	4.35E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-234. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

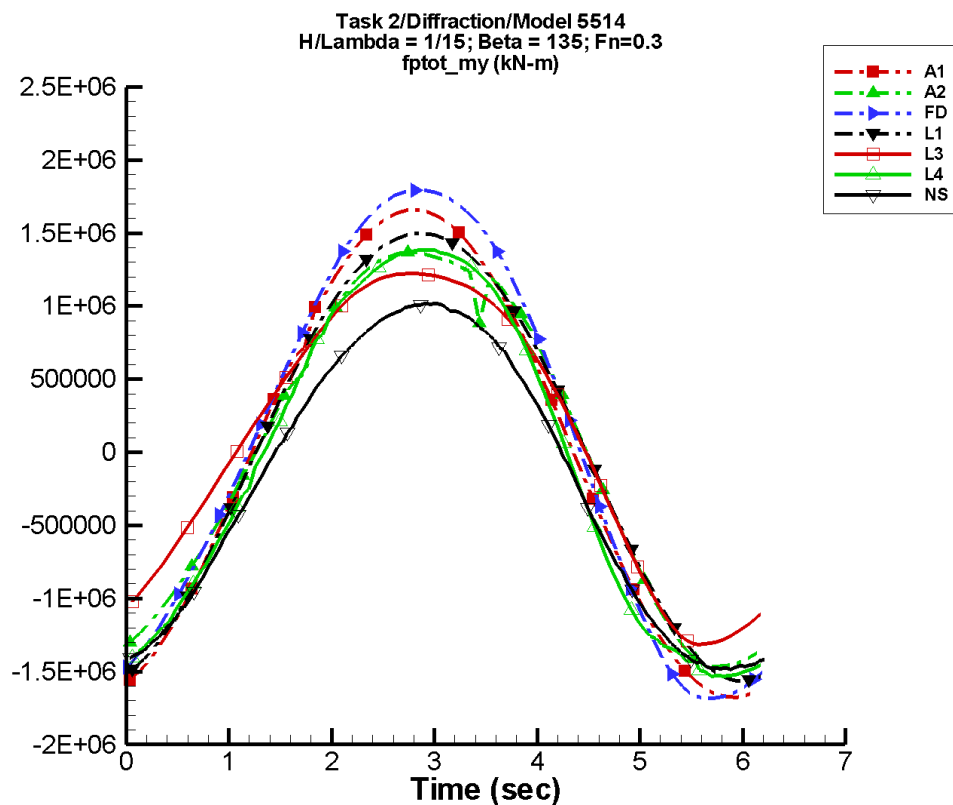
Table H-467. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.19E+03	1.25E+06	-78	5.64E+03	-49
A2	3.21E+04	1.15E+06	-84	5.26E+04	-8
FD	6.75E+04	1.34E+06	-94	5.86E+04	-6
L1	3.32E+04	1.15E+06	-86	3.30E+04	-88
L3	7.04E+04	1.02E+06	-81	8.79E+04	-21
L4	-5.30E+04	1.20E+06	-83	4.34E+04	62
NF	—	—	—	—	—
NS	-2.23E+05	9.96E+05	-75	3.38E+04	9

Table H-468. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.26E+06	1.25E+06	-1.22E+06	1.21E+06
A2	-1.33E+06	1.18E+06	-1.15E+06	1.15E+06
FD	-1.30E+06	1.42E+06	-1.26E+06	1.38E+06
L1	-1.15E+06	1.15E+06	-1.14E+06	1.14E+06
L3	-1.04E+06	1.04E+06	-1.02E+06	1.03E+06
L4	-1.23E+06	1.17E+06	-1.20E+06	1.15E+06
NF	—	—	—	—
NS	-1.22E+06	7.58E+05	-1.21E+06	7.50E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-235. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

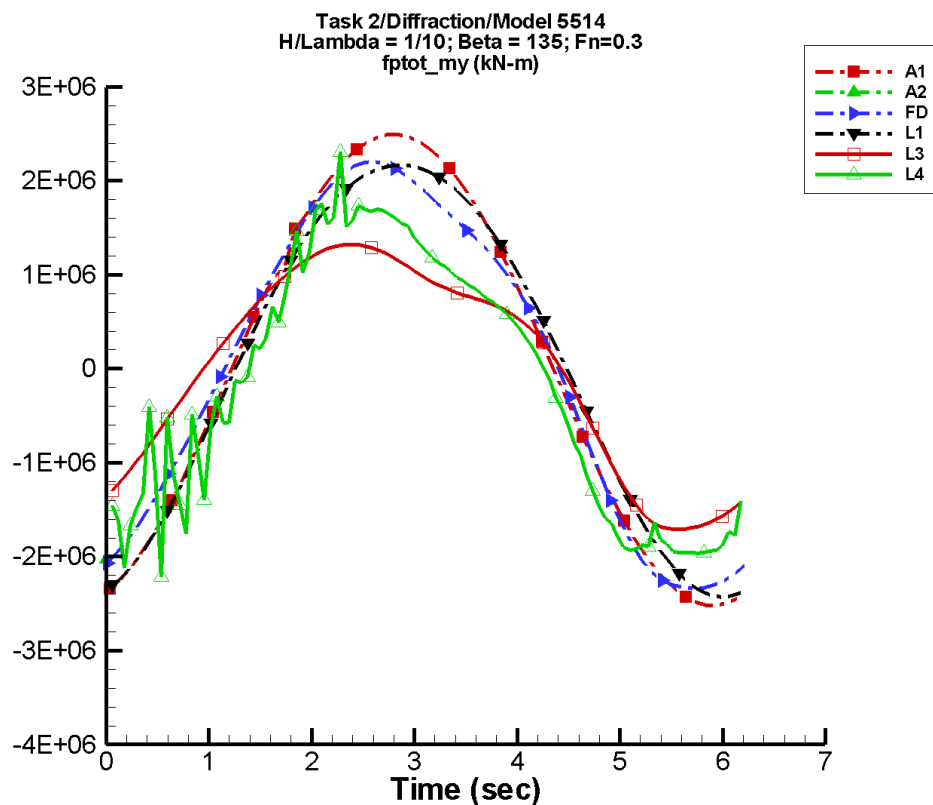
Table H-469. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.59E+03	1.67E+06	-78	7.50E+03	-49
A2	2.39E+04	1.42E+06	-82	8.09E+04	-30
FD	9.12E+04	1.74E+06	-94	1.00E+05	-18
L1	2.45E+04	1.53E+06	-86	5.82E+04	-88
L3	7.97E+04	1.26E+06	-79	1.40E+05	-26
L4	-9.40E+04	1.50E+06	-82	8.68E+04	42
NF	—	—	—	—	—
NS	-2.31E+05	1.27E+06	-74	5.19E+04	15

Table H-470. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.68E+06	1.66E+06	-1.63E+06	1.62E+06
A2	-1.47E+06	1.37E+06	-1.42E+06	1.34E+06
FD	-1.68E+06	1.79E+06	-1.64E+06	1.76E+06
L1	-1.56E+06	1.50E+06	-1.55E+06	1.49E+06
L3	-1.31E+06	1.22E+06	-1.30E+06	1.22E+06
L4	-1.54E+06	1.39E+06	-1.52E+06	1.37E+06
NF	—	—	—	—
NS	-1.49E+06	1.02E+06	-1.48E+06	1.01E+06

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Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-236. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

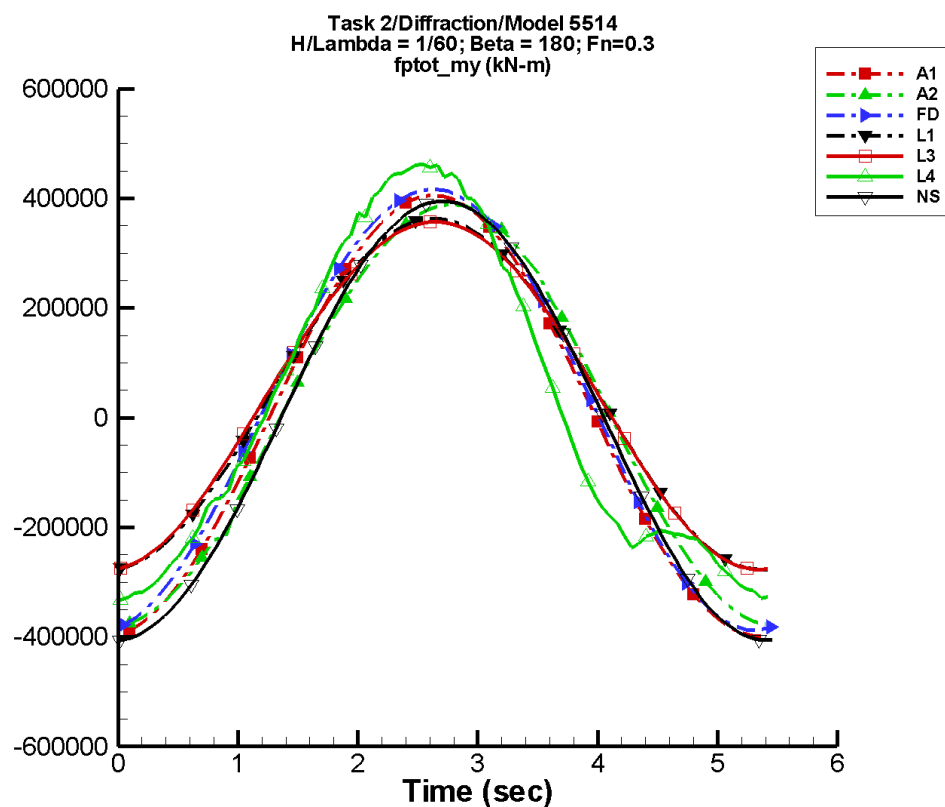
Table H-471. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.39E+03	2.51E+06	-78	1.13E+04	-49
A2	-1.66E+06	1.29E+06	-11	9.86E+05	-140
FD	7.23E+03	2.24E+06	-90	1.23E+05	-90
L1	-882.	2.30E+06	-86	1.30E+05	-87
L3	-9.30E+03	1.44E+06	-71	2.48E+05	-62
L4	-2.14E+05	1.83E+06	-76	1.02E+05	110
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-472. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.52E+06	2.49E+06	-2.45E+06	2.43E+06
A2	-2.03E+06	-1.97E+06	-2.03E+06	-1.97E+06
FD	-2.34E+06	2.20E+06	-2.29E+06	2.13E+06
L1	-2.43E+06	2.17E+06	-2.40E+06	2.15E+06
L3	-1.71E+06	1.32E+06	-1.69E+06	1.31E+06
L4	-2.69E+06	2.31E+06	-1.93E+06	1.72E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-237. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-473. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.19E+03	4.03E+05	-76	3.30E+03	80
A2	6.57E+03	3.82E+05	-84	5.63E+03	11
FD	1.78E+04	4.03E+05	11	6.77E+03	165
L1	4.32E+04	3.20E+05	-62	856.	-118
L3	4.35E+04	3.17E+05	-61	4.53E+03	-4
L4	1.51E+04	3.85E+05	-52	6.81E+04	169
NF	—	—	—	—	—
NS	-6.88E+03	4.01E+05	-87	2.93E+03	36

Table H-474. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.98E+05	4.06E+05	-3.86E+05	3.92E+05
A2	-3.77E+05	3.90E+05	-3.64E+05	3.77E+05
FD	-3.88E+05	4.17E+05	-3.81E+05	4.04E+05
L1	-2.77E+05	3.64E+05	-2.73E+05	3.60E+05
L3	-2.77E+05	3.58E+05	-2.73E+05	3.54E+05
L4	-3.33E+05	4.64E+05	-3.29E+05	4.54E+05
NF	—	—	—	—
NS	-4.06E+05	3.95E+05	-4.06E+05	3.91E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514

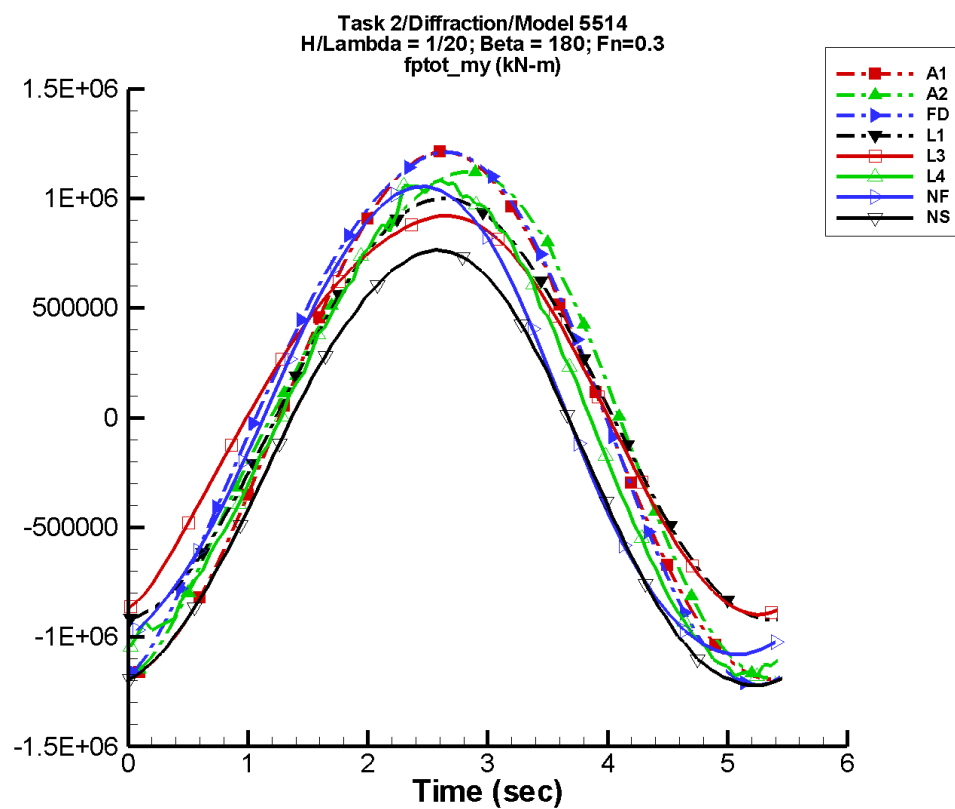


Figure H-238. Time history of  $M_y^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-475. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.55E+03	1.21E+06	-76	9.88E+03	80
A2	3.93E+04	1.13E+06	-79	1.18E+05	-22
FD	6.09E+04	1.20E+06	14	8.96E+04	158
L1	4.30E+04	9.61E+05	-62	5.20E+03	-80
L3	7.78E+04	8.96E+05	-54	7.83E+04	10
L4	-6.47E+04	1.09E+06	-56	6.05E+04	100
NF	-6.23E+04	1.08E+06	12	5.79E+04	-95
NS	-2.42E+05	9.99E+05	-74	2.50E+04	48

Table H-476. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.19E+06	1.21E+06	-1.15E+06	1.17E+06
A2	-1.19E+06	1.12E+06	-1.14E+06	1.09E+06
FD	-1.22E+06	1.21E+06	-1.20E+06	1.17E+06
L1	-9.22E+05	1.00E+06	-9.10E+05	9.89E+05
L3	-8.98E+05	9.22E+05	-8.84E+05	9.11E+05
L4	-1.18E+06	1.10E+06	-1.15E+06	1.05E+06
NF	-1.08E+06	1.05E+06	-1.03E+06	9.90E+05
NS	-1.22E+06	7.66E+05	-1.21E+06	7.52E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514

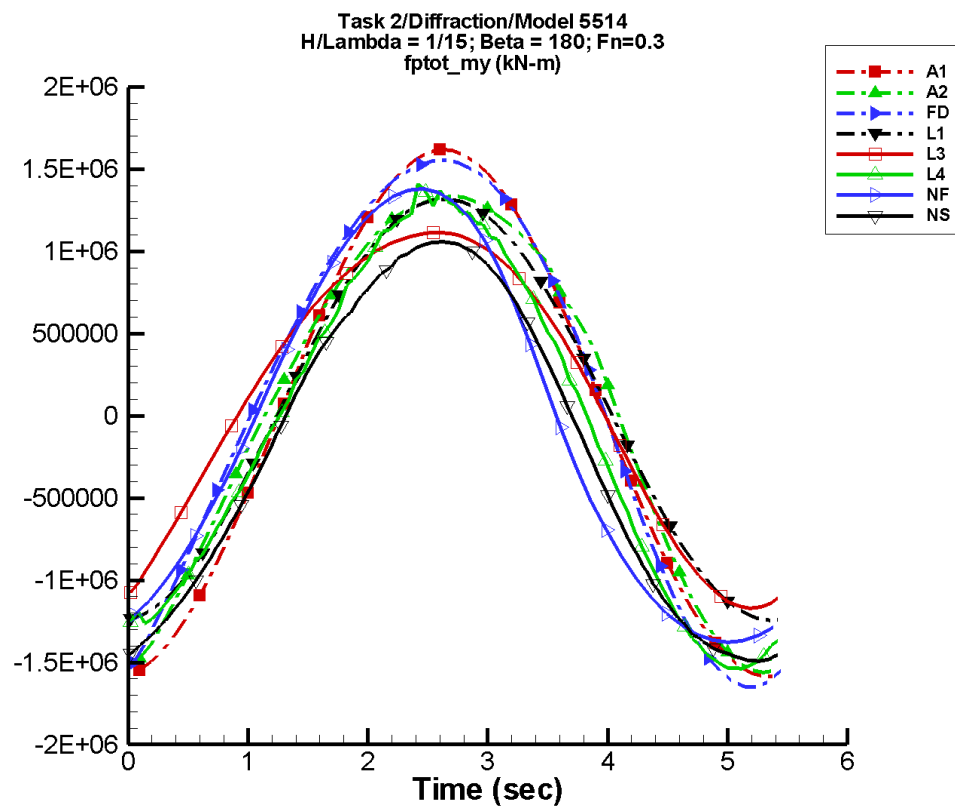


Figure H-239. Time history of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

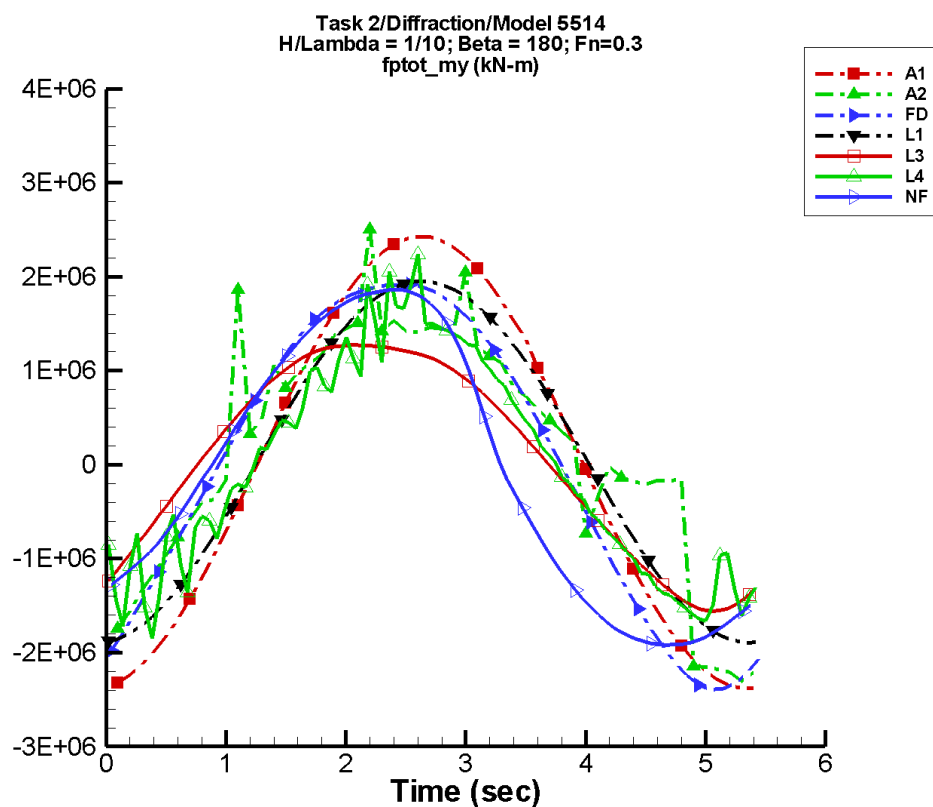
Table H-477. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.73E+03	1.60E+06	-76	1.32E+04	80
A2	3.68E+04	1.43E+06	-76	1.68E+05	-35
FD	8.22E+04	1.57E+06	16	1.56E+05	159
L1	4.33E+04	1.28E+06	-62	9.18E+03	-73
L3	9.77E+04	1.12E+06	-50	1.27E+05	10
L4	-1.11E+05	1.38E+06	-54	9.20E+04	91
NF	-8.23E+04	1.40E+06	17	1.05E+05	-90
NS	-2.39E+05	1.28E+06	-74	5.46E+04	54

Table H-478. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.59E+06	1.62E+06	-1.54E+06	1.56E+06
A2	-1.56E+06	1.33E+06	-1.49E+06	1.30E+06
FD	-1.65E+06	1.55E+06	-1.63E+06	1.51E+06
L1	-1.25E+06	1.32E+06	-1.23E+06	1.30E+06
L3	-1.17E+06	1.12E+06	-1.15E+06	1.10E+06
L4	-1.54E+06	1.42E+06	-1.51E+06	1.31E+06
NF	-1.38E+06	1.39E+06	-1.32E+06	1.30E+06
NS	-1.49E+06	1.06E+06	-1.48E+06	1.05E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NSHIPMO.

Figure H-240. Time history of  $M_y^{ptot}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

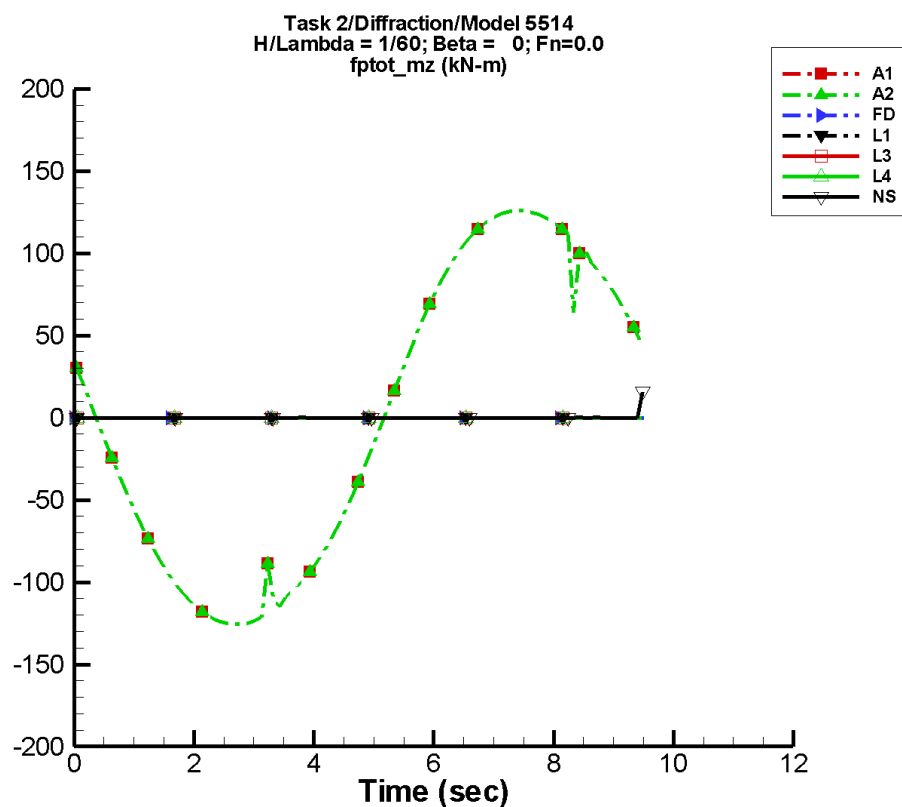
Table H-479. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.11E+03	2.41E+06	-76	1.98E+04	80
A2	1.50E+05	1.65E+06	-69	3.25E+05	-81
FD	-1.04E+04	2.12E+06	26	1.90E+05	151
L1	4.46E+04	1.92E+06	-62	2.08E+04	-67
L3	3.61E+04	1.38E+06	-35	1.48E+05	0
L4	-6.38E+04	1.51E+06	-57	9.09E+04	127
NF	-1.40E+05	1.92E+06	12	2.20E+05	-118
NS	—	—	—	—	—

Table H-480. Minimum and maximum of  $M_y^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.38E+06	2.43E+06	-2.31E+06	2.35E+06
A2	-2.30E+06	2.50E+06	-2.01E+06	1.59E+06
FD	-2.39E+06	1.92E+06	-2.32E+06	1.88E+06
L1	-1.90E+06	1.95E+06	-1.87E+06	1.93E+06
L3	-1.56E+06	1.28E+06	-1.52E+06	1.26E+06
L4	-1.85E+06	2.24E+06	-1.47E+06	1.73E+06
NF	-1.92E+06	1.86E+06	-1.90E+06	1.84E+06
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-241. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-481. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

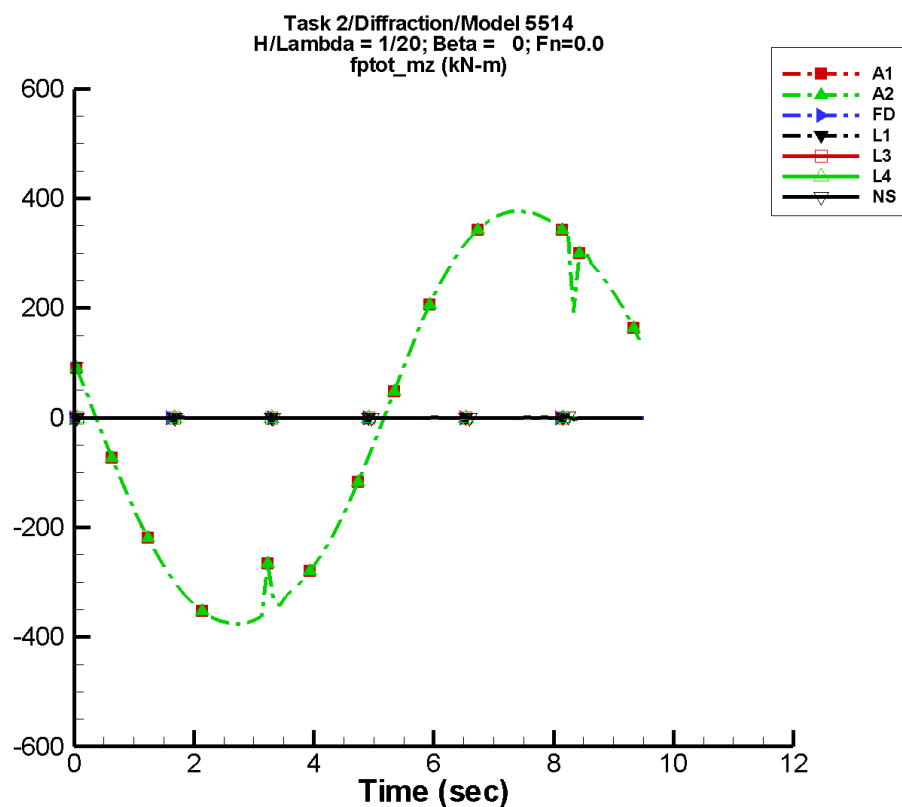
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.249	128.	161	0.368	59
A2	-0.249	128.	161	0.368	59
FD	1.85E-04	2.19E-04	-152	1.15E-04	-99
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.76E-03	2.51E-02	119	5.85E-02	159

Table H-482. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-126.	126.	-124.	125.
A2	-126.	126.	-124.	125.
FD	-3.74E-03	3.08E-03	-6.37E-04	9.83E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-15.5	15.8	-0.332	0.456



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-242. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

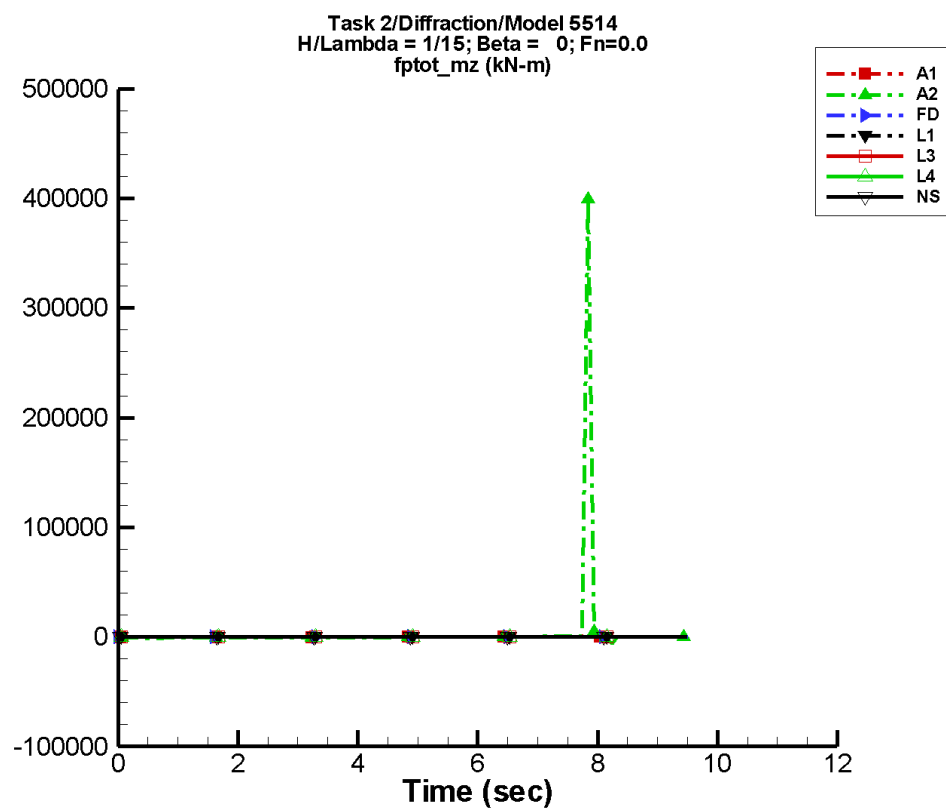
Table H-483. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.746	384.	161	1.10	59
A2	-0.741	384.	161	1.10	59
FD	-1.45E-04	2.25E-04	83	6.26E-04	-151
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.92E-03	9.87E-03	143	2.47E-02	-65

Table H-484. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-376.	377.	-370.	375.
A2	-376.	377.	-370.	375.
FD	-4.68E-03	6.26E-03	-2.47E-03	1.06E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.64	2.75	-0.125	9.77E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-243. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

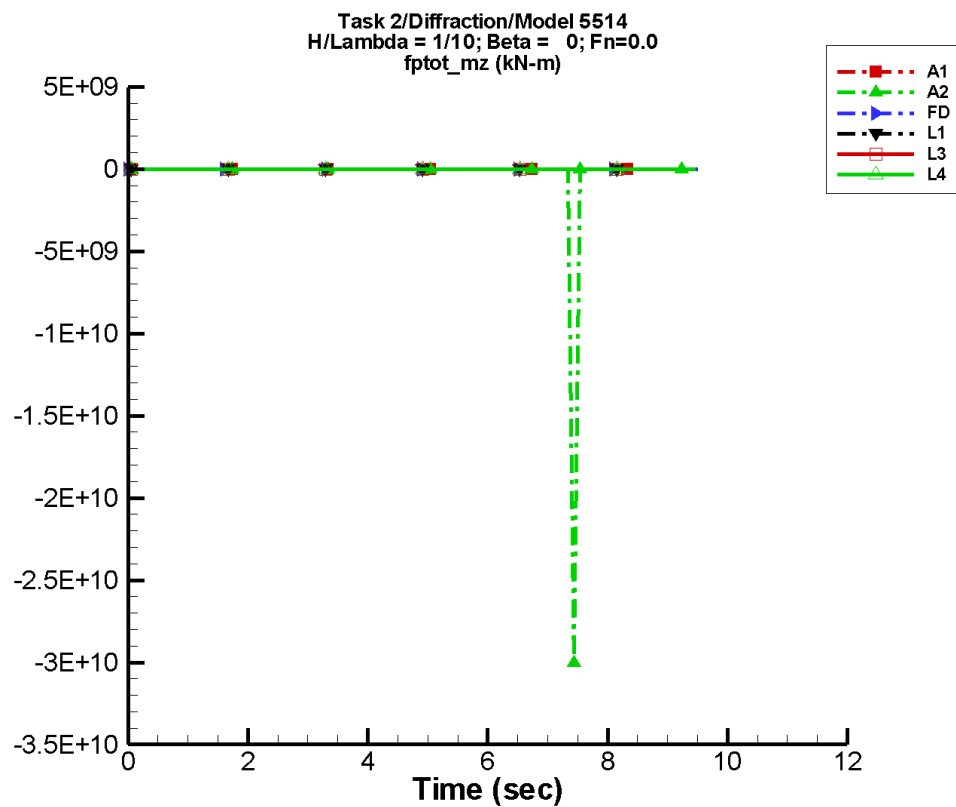
Table H-485. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.993	511.	161	1.46	59
A2	4.39E+03	8.55E+03	147	8.05E+03	-147
FD	1.92E-04	5.47E-05	122	8.31E-05	79
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.84E-03	3.49E-02	126	5.09E-02	-128

Table H-486. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-500.	502.	-493.	499.
A2	-6.85E+03	4.00E+05	-4.53E+03	5.39E+04
FD	-3.66E-03	5.26E-03	-7.06E-04	9.92E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.08	8.91	-0.282	0.166

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-244. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

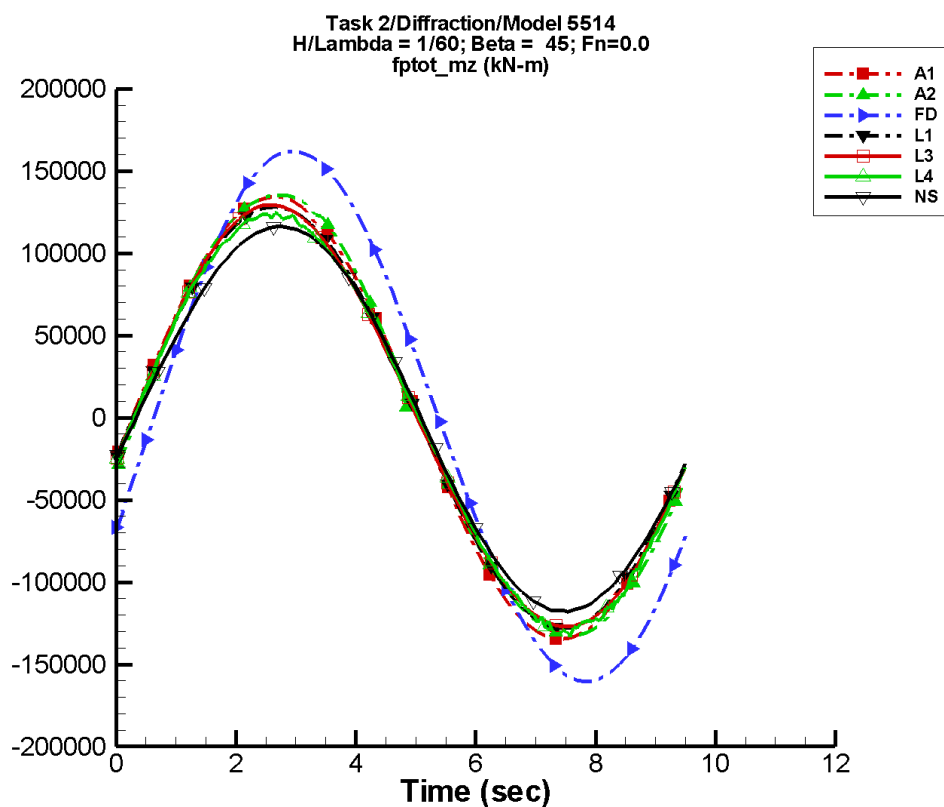
Table H-487. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.49	768.	161	2.20	59
A2	-3.40E+08	6.22E+08	-20	5.83E+08	61
FD	2.65E-04	5.45E-04	-147	5.27E-04	51
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-488. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-752.	754.	-741.	750.
A2	-3.00E+10	8.33E+05	-4.00E+09	3.42E+08
FD	-5.94E-03	8.35E-03	-1.18E-03	3.23E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-245. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-489. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

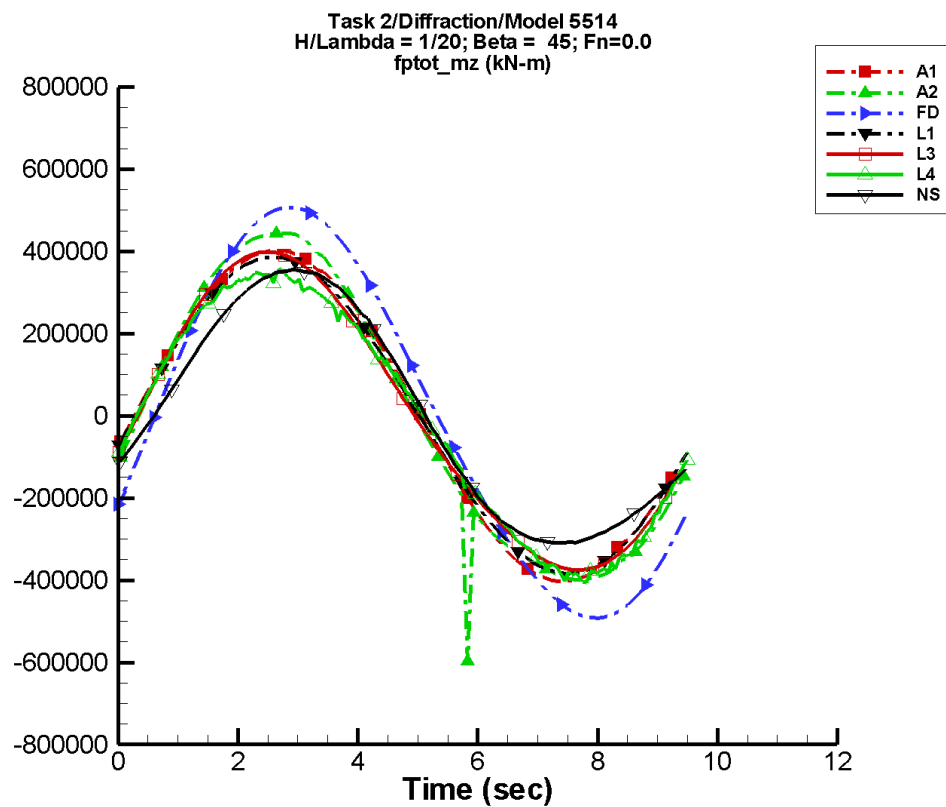
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-81.0	1.34E+05	-15	129.	-48
A2	-121.	1.35E+05	-17	3.70E+03	-81
FD	10.3	1.61E+05	-29	3.58E+03	-72
L1	-252.	1.28E+05	-14	1.12E+03	-45
L3	-253.	1.28E+05	-14	3.70E+03	-50
L4	-1.50E+03	1.27E+05	-15	3.92E+03	-8
NF	—	—	—	—	—
NS	-741.	1.17E+05	-13	769.	149

Table H-490. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.35E+05	1.34E+05	-1.33E+05	1.33E+05
A2	-1.32E+05	1.35E+05	-1.31E+05	1.34E+05
FD	-1.60E+05	1.62E+05	-1.59E+05	1.60E+05
L1	-1.28E+05	1.28E+05	-1.27E+05	1.28E+05
L3	-1.27E+05	1.29E+05	-1.27E+05	1.29E+05
L4	-1.33E+05	1.25E+05	-1.30E+05	1.23E+05
NF	—	—	—	—
NS	-1.18E+05	1.16E+05	-1.17E+05	1.15E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-246. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

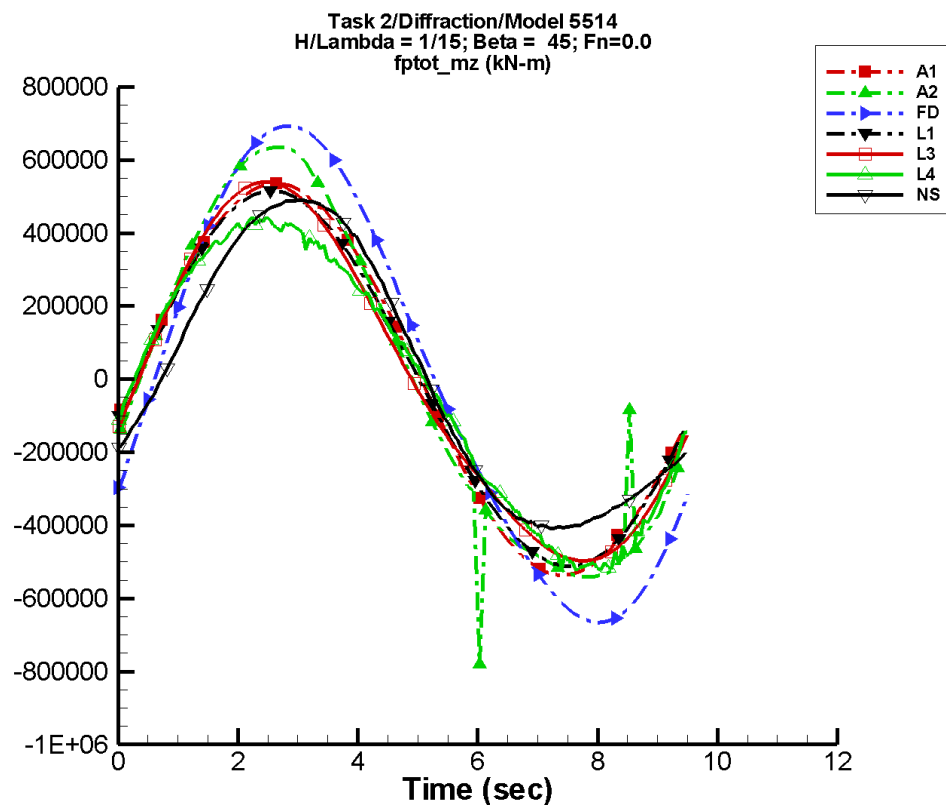
Table H-491. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-242.	4.02E+05	-15	386.	-48
A2	-3.47E+03	4.30E+05	-15	3.30E+04	-100
FD	296.	4.95E+05	-28	2.92E+04	-73
L1	-2.06E+03	3.84E+05	-14	9.70E+03	-45
L3	-2.01E+03	3.83E+05	-14	3.20E+04	-57
L4	-1.15E+04	3.66E+05	-16	3.27E+04	-10
NF	—	—	—	—	—
NS	-62.9	3.35E+05	-18	3.08E+04	-157

Table H-492. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.03E+05	4.02E+05	-3.98E+05	3.97E+05
A2	-5.97E+05	4.44E+05	-3.93E+05	4.40E+05
FD	-4.92E+05	5.06E+05	-4.86E+05	5.00E+05
L1	-3.84E+05	3.85E+05	-3.82E+05	3.84E+05
L3	-3.75E+05	3.99E+05	-3.74E+05	3.97E+05
L4	-4.06E+05	3.58E+05	-3.91E+05	3.44E+05
NF	—	—	—	—
NS	-3.09E+05	3.56E+05	-3.07E+05	3.51E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-247. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

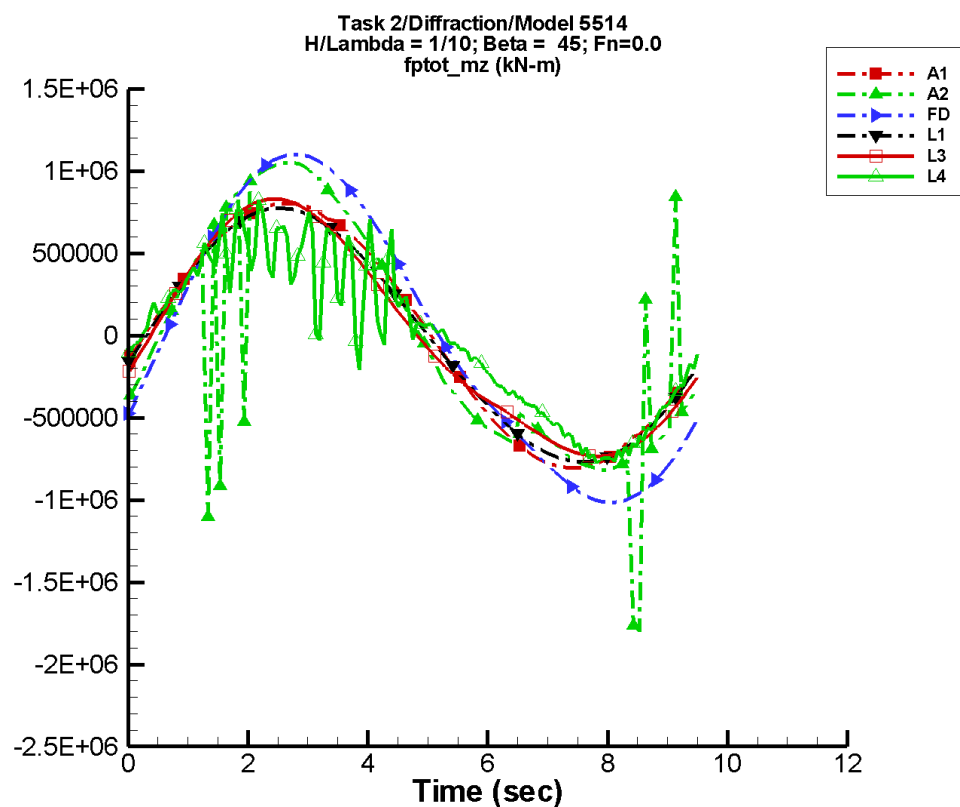
Table H-493. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-323.	5.35E+05	-15	514.	-48
A2	-1.96E+03	5.83E+05	-15	5.38E+04	-105
FD	636.	6.71E+05	-28	5.11E+04	-76
L1	-3.62E+03	5.12E+05	-14	1.72E+04	-45
L3	-3.48E+03	5.10E+05	-14	5.49E+04	-60
L4	-1.75E+04	4.69E+05	-16	5.98E+04	-6
NF	—	—	—	—	—
NS	595.	4.55E+05	-20	5.74E+04	-154

Table H-494. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.36E+05	5.35E+05	-5.31E+05	5.29E+05
A2	-7.81E+05	6.35E+05	-5.39E+05	6.28E+05
FD	-6.66E+05	6.93E+05	-6.58E+05	6.85E+05
L1	-5.12E+05	5.14E+05	-5.10E+05	5.12E+05
L3	-4.97E+05	5.40E+05	-4.95E+05	5.37E+05
L4	-5.24E+05	4.45E+05	-5.12E+05	4.31E+05
NF	—	—	—	—
NS	-4.09E+05	4.90E+05	-4.05E+05	4.87E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-248. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

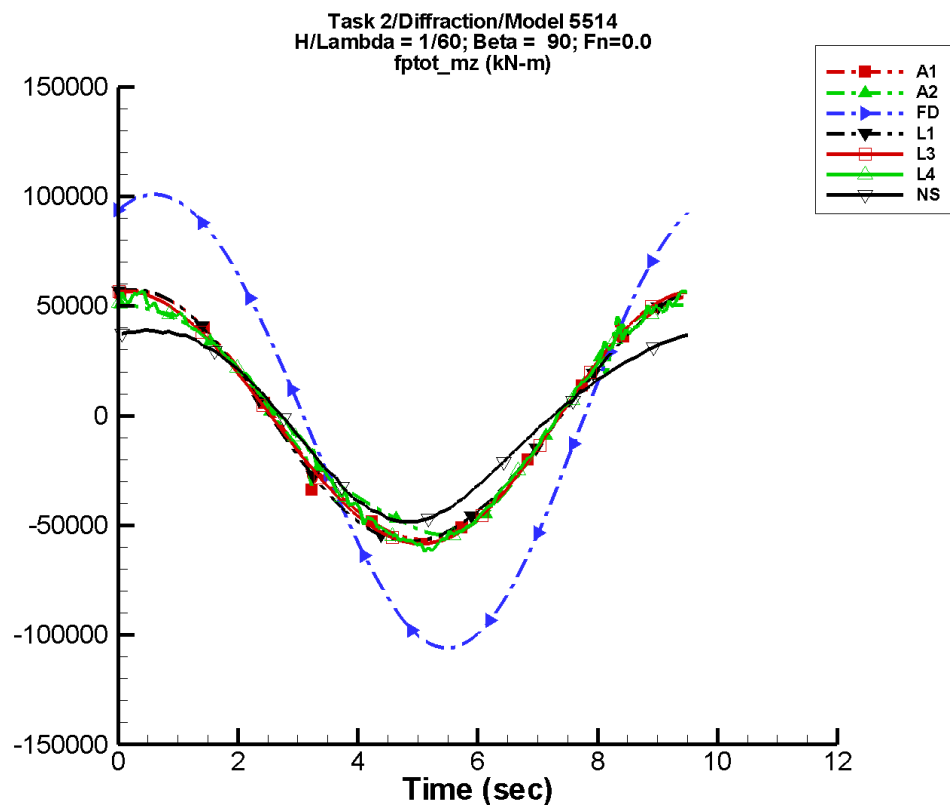
Table H-495. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-485.	8.04E+05	-15	773.	-48
A2	-3.65E+04	8.38E+05	-15	1.25E+05	-143
FD	1.29E+03	1.04E+06	-27	1.06E+05	-87
L1	-8.04E+03	7.68E+05	-14	3.84E+04	-45
L3	-7.89E+03	7.60E+05	-14	1.06E+05	-68
L4	-1.22E+04	5.99E+05	-17	1.35E+05	-4
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-496. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.05E+05	8.04E+05	-7.97E+05	7.95E+05
A2	-1.80E+06	1.05E+06	-9.42E+05	1.04E+06
FD	-1.02E+06	1.10E+06	-1.00E+06	1.09E+06
L1	-7.68E+05	7.75E+05	-7.66E+05	7.71E+05
L3	-7.34E+05	8.30E+05	-7.31E+05	8.26E+05
L4	-7.76E+05	8.24E+05	-7.46E+05	6.06E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-249. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-497. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

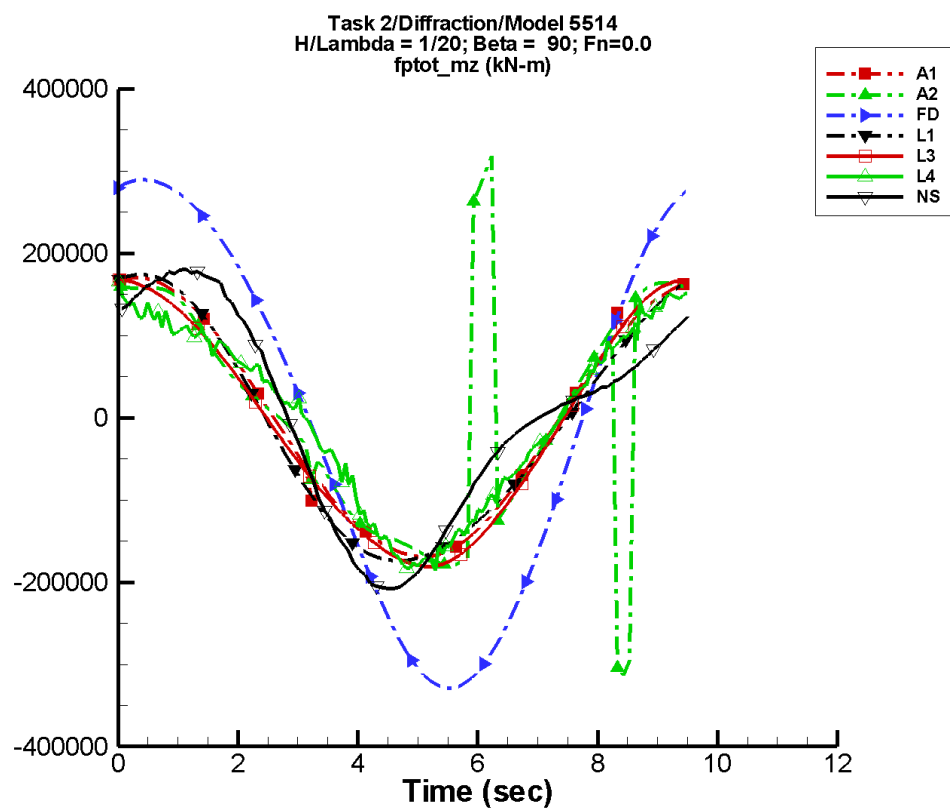
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.37	5.68E+04	77	144.	53
A2	-133.	5.30E+04	76	3.34E+03	165
FD	-1.12	1.03E+05	59	3.28E+03	169
L1	-892.	5.73E+04	79	1.77E+03	9
L3	-895.	5.76E+04	79	1.68E+03	155
L4	-73.3	5.57E+04	78	3.24E+03	-155
NF	—	—	—	—	—
NS	-733.	4.27E+04	81	5.18E+03	-70

Table H-498. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.65E+04	5.70E+04	-5.58E+04	5.67E+04
A2	-5.44E+04	5.08E+04	-5.35E+04	5.07E+04
FD	-1.06E+05	1.01E+05	-1.05E+05	9.99E+04
L1	-5.74E+04	5.74E+04	-5.72E+04	5.72E+04
L3	-5.85E+04	5.68E+04	-5.82E+04	5.69E+04
L4	-6.20E+04	5.68E+04	-5.94E+04	5.50E+04
NF	—	—	—	—
NS	-4.85E+04	3.91E+04	-4.77E+04	3.84E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-250. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

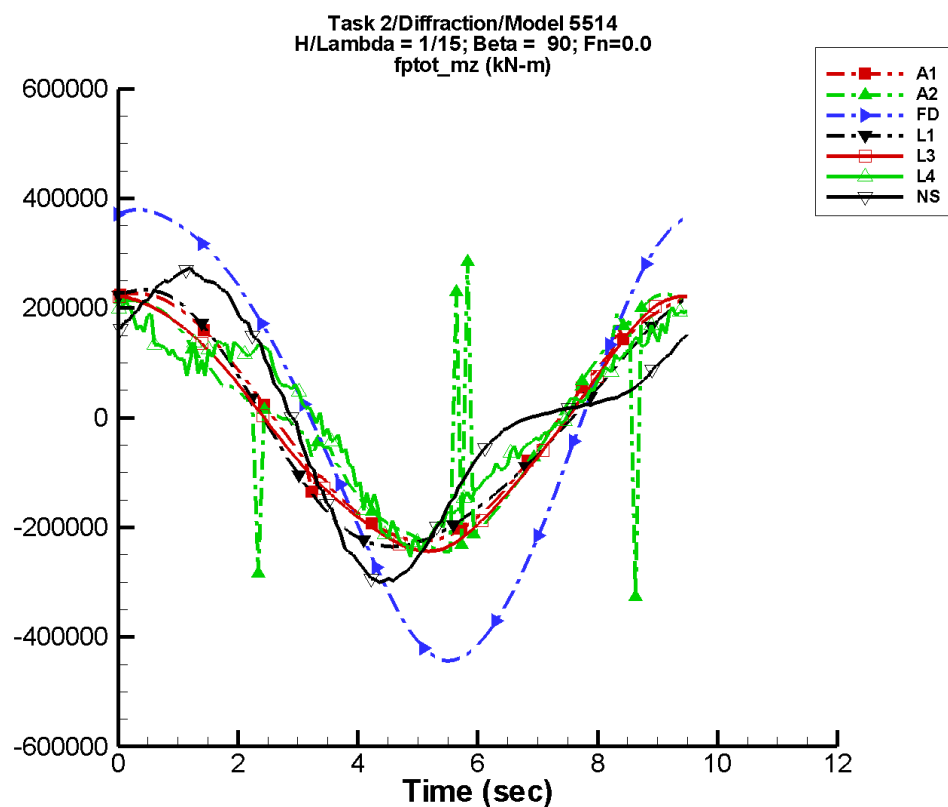
Table H-499. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	13.1	1.70E+05	77	432.	53
A2	7.17E+03	1.31E+05	80	4.37E+04	-1
FD	50.7	3.06E+05	59	2.57E+04	169
L1	-7.82E+03	1.72E+05	79	1.59E+04	9
L3	-7.91E+03	1.71E+05	79	9.11E+03	147
L4	3.68E+03	1.47E+05	74	2.24E+04	-142
NF	—	—	—	—	—
NS	2.58E+03	1.62E+05	79	5.98E+04	-42

Table H-500. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.69E+05	1.70E+05	-1.67E+05	1.70E+05
A2	-3.13E+05	7.38E+05	-1.84E+05	2.30E+05
FD	-3.29E+05	2.89E+05	-3.24E+05	2.90E+05
L1	-1.74E+05	1.74E+05	-1.74E+05	1.73E+05
L3	-1.81E+05	1.67E+05	-1.80E+05	1.67E+05
L4	-1.86E+05	1.66E+05	-1.78E+05	1.55E+05
NF	—	—	—	—
NS	-2.08E+05	1.80E+05	-2.04E+05	1.77E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-251. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

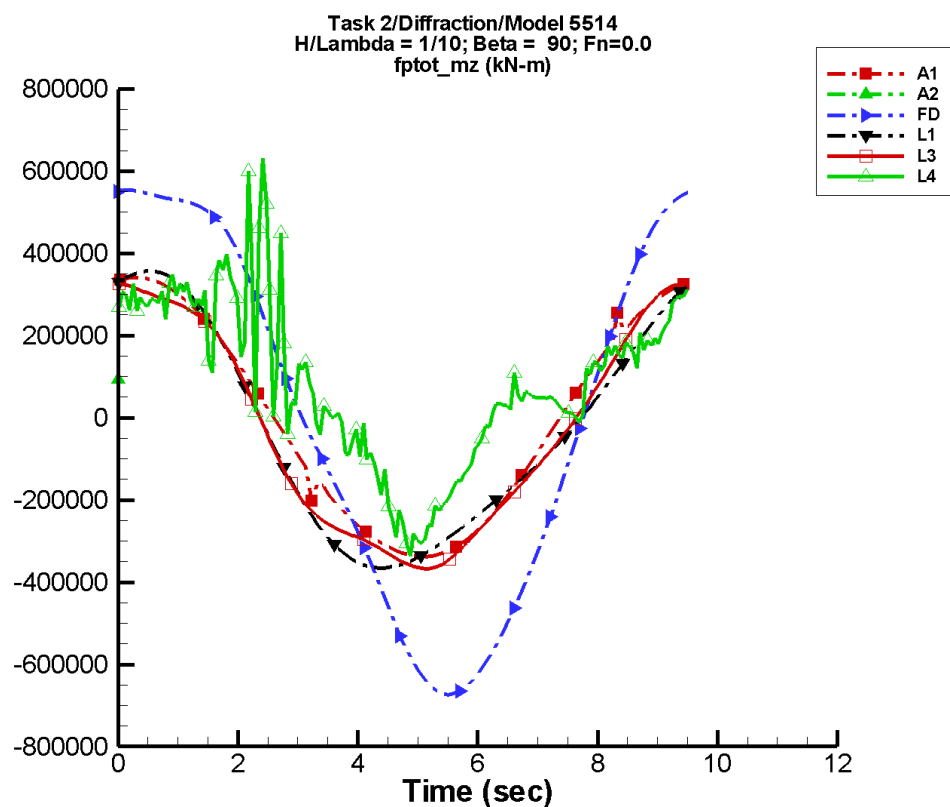
Table H-501. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	17.4	2.26E+05	77	575.	53
A2	1.45E+03	1.90E+05	80	2.00E+04	111
FD	94.3	4.05E+05	59	4.19E+04	168
L1	-1.38E+04	2.29E+05	79	2.83E+04	9
L3	-1.40E+04	2.26E+05	79	1.09E+04	133
L4	1.14E+04	1.77E+05	70	3.80E+04	-129
NF	—	—	—	—	—
NS	5.52E+03	2.15E+05	77	1.02E+05	-39

Table H-502. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.25E+05	2.27E+05	-2.22E+05	2.26E+05
A2	-3.27E+05	2.84E+05	-2.24E+05	2.22E+05
FD	-4.43E+05	3.79E+05	-4.36E+05	3.81E+05
L1	-2.35E+05	2.34E+05	-2.34E+05	2.32E+05
L3	-2.44E+05	2.21E+05	-2.43E+05	2.21E+05
L4	-2.54E+05	2.12E+05	-2.32E+05	1.99E+05
NF	—	—	—	—
NS	-3.00E+05	2.73E+05	-2.94E+05	2.62E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-252. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

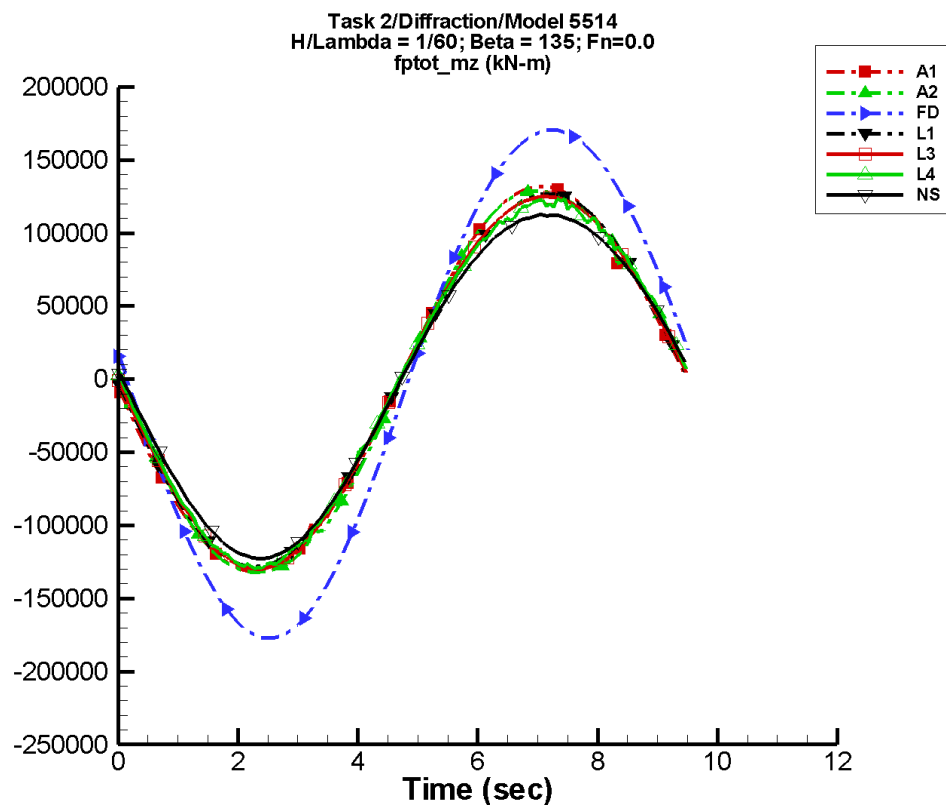
Table H-503. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	26.1	3.40E+05	77	864.	53
A2	9.11E+04	7.67E+05	86	8.62E+04	128
FD	-665.	6.09E+05	59	5.14E+04	170
L1	-3.11E+04	3.44E+05	79	6.37E+04	9
L3	-3.20E+04	3.42E+05	79	2.54E+04	31
L4	8.46E+04	2.32E+05	62	7.20E+04	-87
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-504. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.38E+05	3.41E+05	-3.34E+05	3.39E+05
A2	9.27E+04	1.37E+05	9.27E+04	1.37E+05
FD	-6.74E+05	5.54E+05	-6.62E+05	5.58E+05
L1	-3.66E+05	3.57E+05	-3.64E+05	3.55E+05
L3	-3.68E+05	3.25E+05	-3.65E+05	3.24E+05
L4	-3.36E+05	6.30E+05	-2.93E+05	3.58E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-253. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-505. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

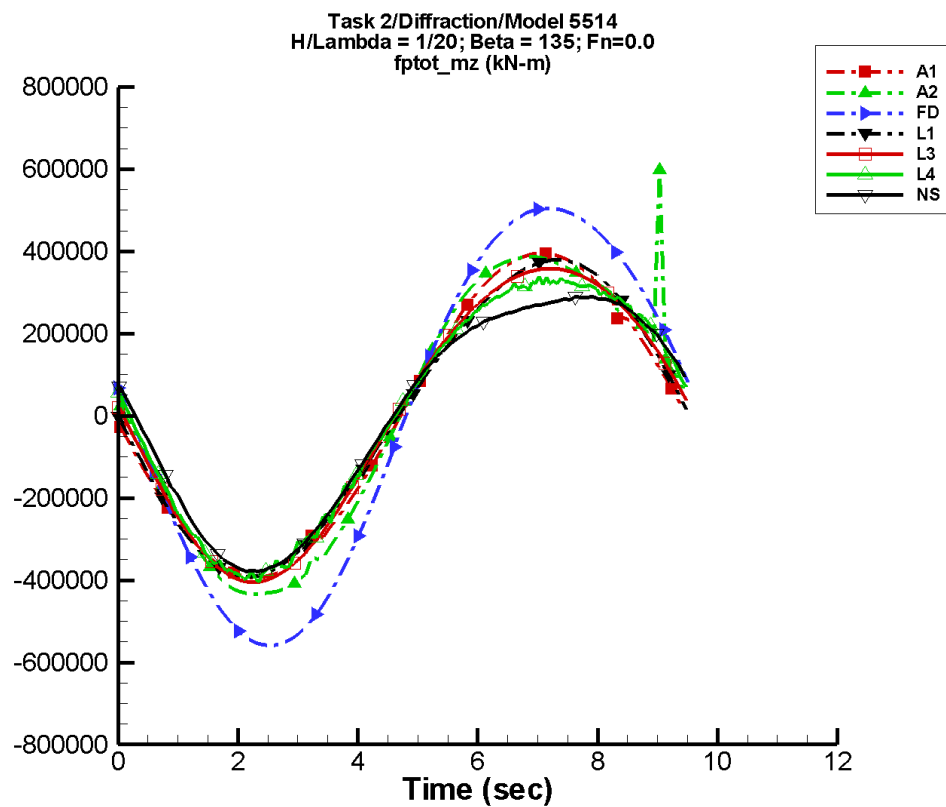
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	62.5	1.32E+05	178	126.	165
A2	-115.	1.32E+05	176	3.32E+03	55
FD	-7.03	1.74E+05	170	3.58E+03	49
L1	206.	1.27E+05	178	2.91E+03	156
L3	206.	1.27E+05	178	2.84E+03	103
L4	412.	1.25E+05	177	4.54E+03	110
NF	—	—	—	—	—
NS	-353.	1.18E+05	179	4.83E+03	94

Table H-506. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.32E+05	1.32E+05	-1.30E+05	1.30E+05
A2	-1.32E+05	1.29E+05	-1.31E+05	1.27E+05
FD	-1.77E+05	1.70E+05	-1.75E+05	1.69E+05
L1	-1.28E+05	1.27E+05	-1.28E+05	1.26E+05
L3	-1.30E+05	1.25E+05	-1.29E+05	1.24E+05
L4	-1.30E+05	1.23E+05	-1.28E+05	1.21E+05
NF	—	—	—	—
NS	-1.23E+05	1.13E+05	-1.22E+05	1.11E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-254. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

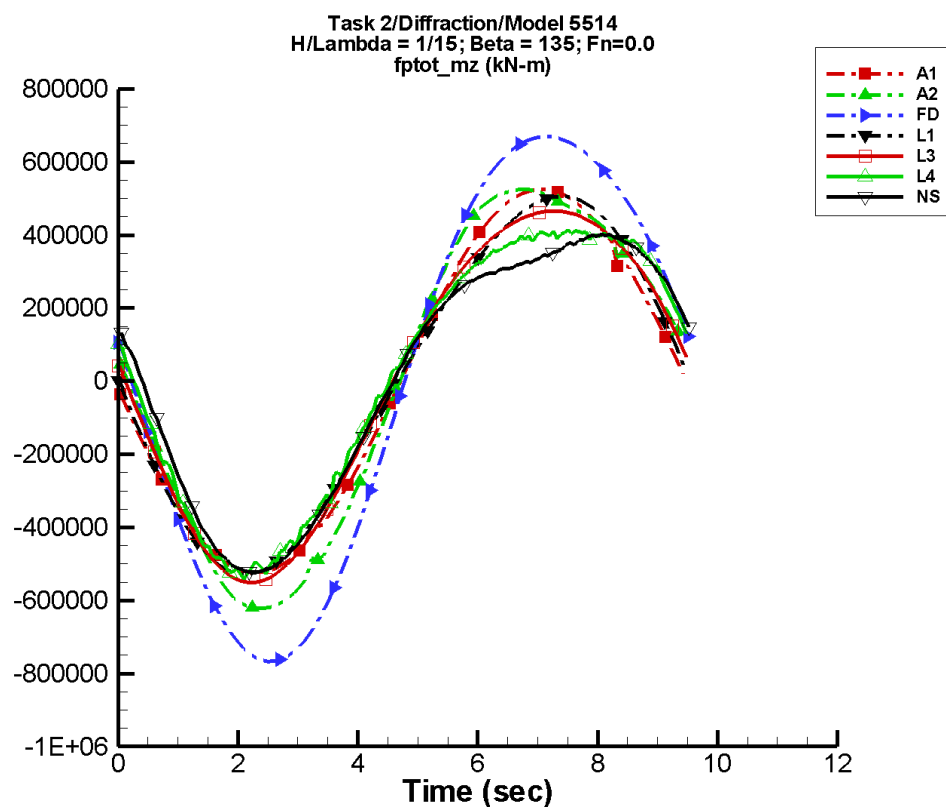
Table H-507. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	187.	3.94E+05	178	377.	165
A2	3.40E+03	4.20E+05	174	3.63E+04	68
FD	-149.	5.35E+05	170	2.95E+04	51
L1	1.82E+03	3.82E+05	178	2.63E+04	156
L3	1.76E+03	3.81E+05	178	2.87E+04	108
L4	7.18E+03	3.62E+05	176	4.26E+04	114
NF	—	—	—	—	—
NS	3.61E+03	3.33E+05	177	5.84E+04	109

Table H-508. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.93E+05	3.95E+05	-3.90E+05	3.90E+05
A2	-4.33E+05	5.98E+05	-4.31E+05	3.82E+05
FD	-5.59E+05	5.04E+05	-5.53E+05	5.00E+05
L1	-3.92E+05	3.79E+05	-3.90E+05	3.77E+05
L3	-4.05E+05	3.58E+05	-4.03E+05	3.56E+05
L4	-4.04E+05	3.38E+05	-3.90E+05	3.27E+05
NF	—	—	—	—
NS	-3.78E+05	2.89E+05	-3.78E+05	2.86E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-255. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

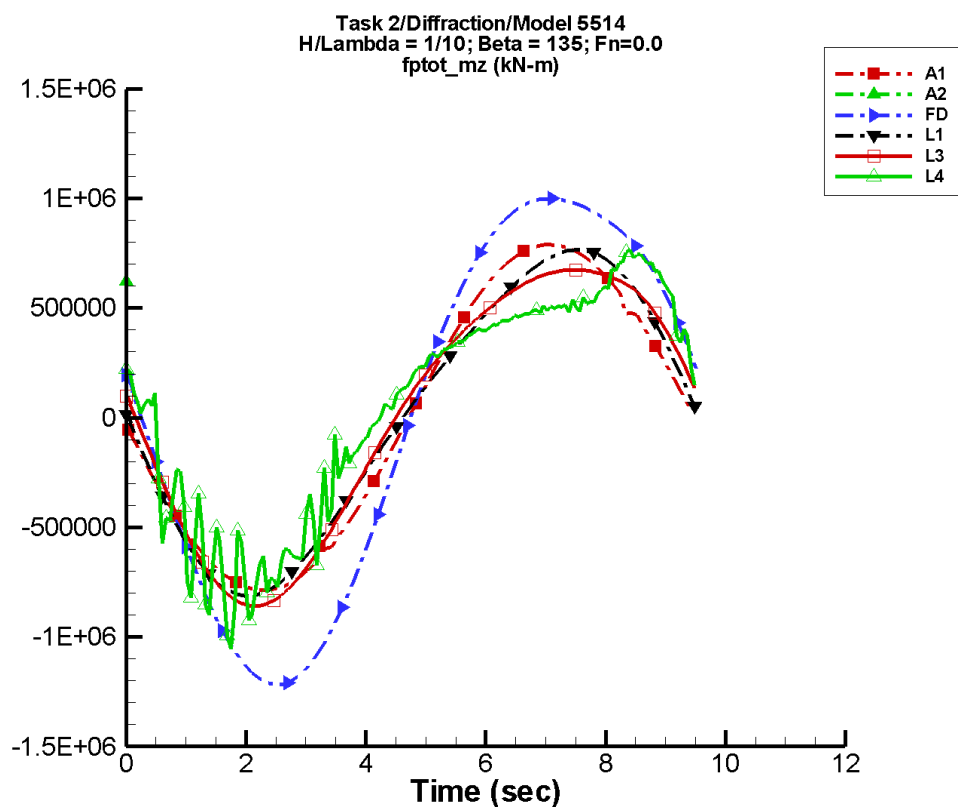
Table H-509. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	249.	5.24E+05	178	502.	165
A2	-400.	5.75E+05	175	6.20E+04	52
FD	-399.	7.26E+05	170	5.15E+04	54
L1	3.24E+03	5.10E+05	178	4.67E+04	156
L3	3.04E+03	5.09E+05	177	5.28E+04	112
L4	1.52E+04	4.70E+05	175	8.32E+04	114
NF	—	—	—	—	—
NS	7.66E+03	4.50E+05	175	1.02E+05	109

Table H-510. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.24E+05	5.25E+05	-5.19E+05	5.20E+05
A2	-6.22E+05	5.25E+05	-6.16E+05	5.19E+05
FD	-7.67E+05	6.70E+05	-7.58E+05	6.64E+05
L1	-5.29E+05	5.06E+05	-5.26E+05	5.04E+05
L3	-5.52E+05	4.66E+05	-5.49E+05	4.64E+05
L4	-5.46E+05	4.15E+05	-5.21E+05	4.06E+05
NF	—	—	—	—
NS	-5.23E+05	4.02E+05	-5.24E+05	3.96E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-256. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

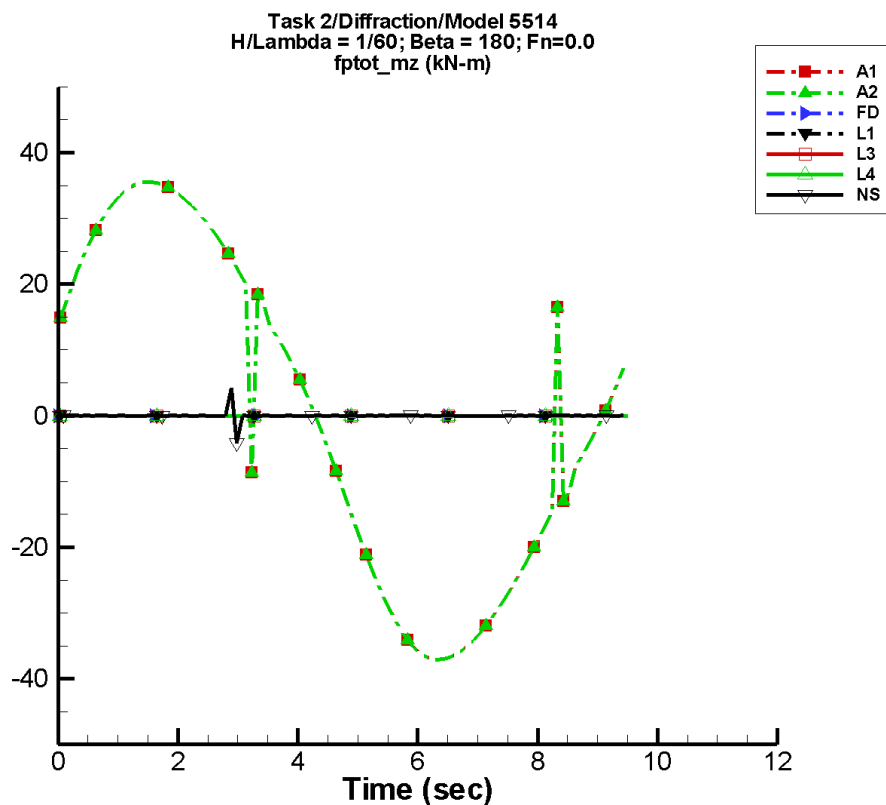
Table H-511. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	374.	7.88E+05	178	754.	165
A2	-1.62E+06	8.20E+06	44	4.51E+06	-121
FD	-892.	1.12E+06	170	1.07E+05	65
L1	7.27E+03	7.65E+05	178	1.05E+05	156
L3	6.92E+03	7.58E+05	177	1.27E+05	122
L4	4.85E+04	6.54E+05	176	2.28E+05	129
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-512. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.87E+05	7.89E+05	-7.79E+05	7.80E+05
A2	6.04E+05	6.20E+05	6.04E+05	6.20E+05
FD	-1.22E+06	9.99E+05	-1.20E+06	9.92E+05
L1	-8.13E+05	7.65E+05	-8.09E+05	7.62E+05
L3	-8.60E+05	6.75E+05	-8.55E+05	6.73E+05
L4	-1.05E+06	7.65E+05	-7.81E+05	7.37E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-257. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-513. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

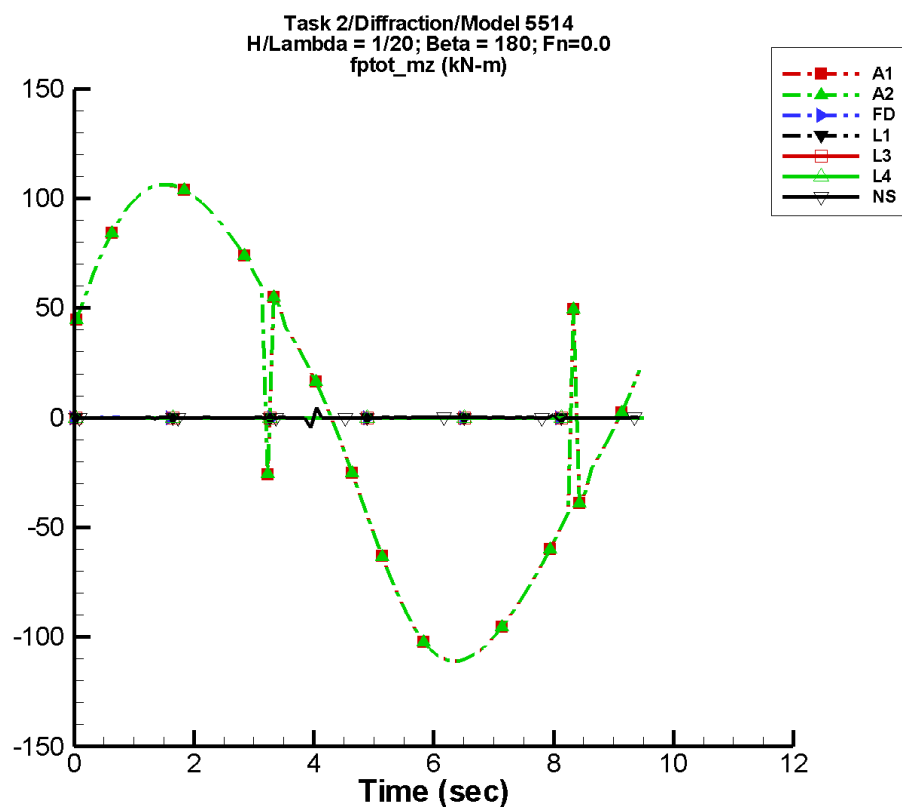
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.133	35.2	19	0.171	31
A2	-0.132	35.2	19	0.171	32
FD	7.05E-04	1.28E-02	19	8.33E-04	52
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.51E-03	9.04E-03	178	2.99E-03	-64

Table H-514. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-37.1	38.0	-36.6	37.9
A2	-37.1	38.0	-36.6	37.9
FD	-1.68E-02	2.98E-02	-1.24E-02	1.52E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.16	4.17	-0.118	9.49E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-258. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

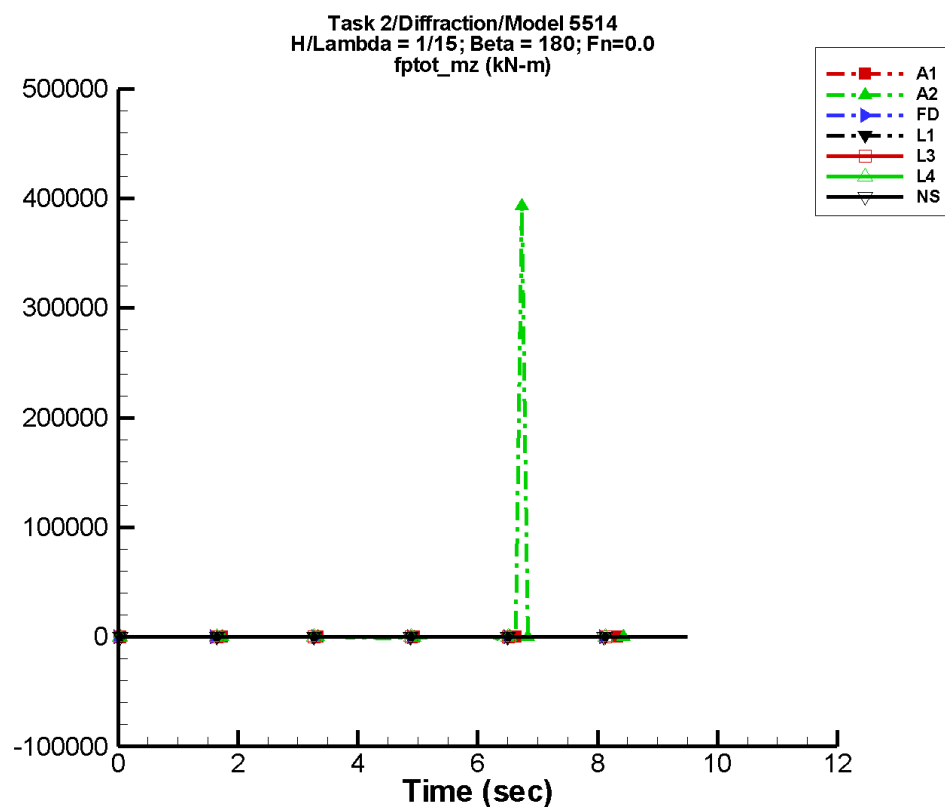
Table H-515. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.397	105.	19	0.513	31
A2	-2.06E+03	4.33E+03	-100	5.02E+03	-118
FD	1.48E-03	3.88E-02	17	2.87E-03	49
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.11E-04	7.03E-02	-142	5.50E-02	11

Table H-516. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-111.	114.	-110.	114.
A2	-3.48E+05	114.	-4.64E+04	4.08E+03
FD	-4.42E-02	9.71E-02	-3.72E-02	4.37E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.67	4.73	-0.144	0.171

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-259. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

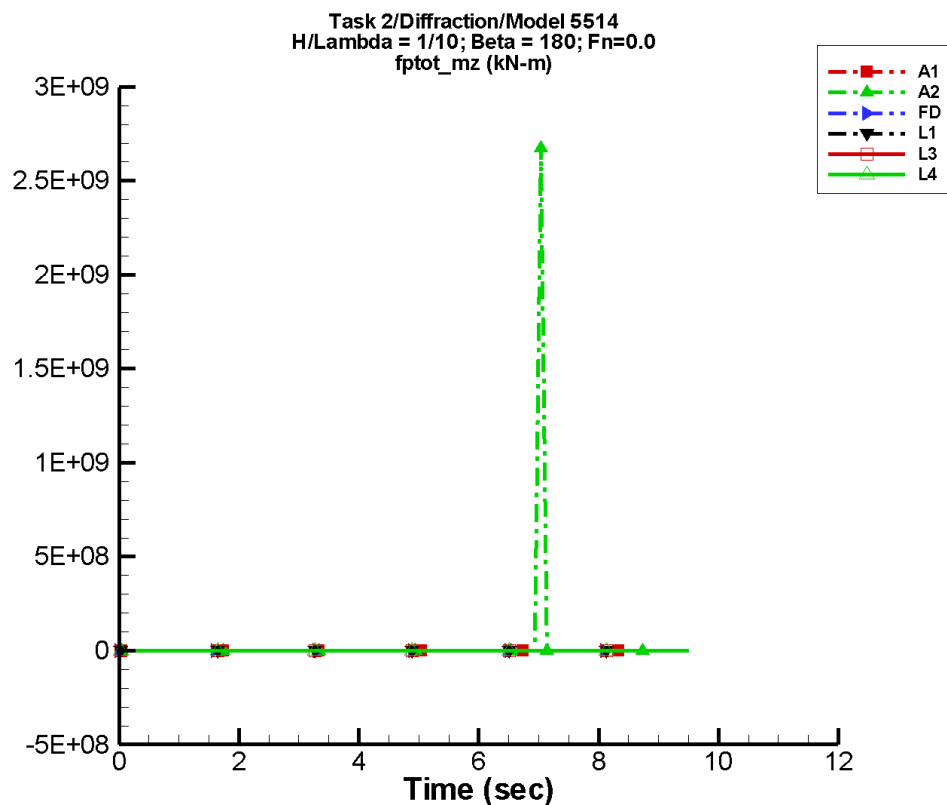
Table H-517. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.528	140.	19	0.683	31
A2	4.13E+03	8.41E+03	-173	7.86E+03	-67
FD	1.93E-03	5.14E-02	18	2.86E-03	50
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.69E-02	8.35E-02	171	7.18E-02	-117

Table H-518. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-148.	152.	-146.	151.
A2	-1.73E+03	3.93E+05	-4.73E+03	5.31E+04
FD	-7.25E-02	0.135	-4.93E-02	5.76E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.993	1.01	-0.112	0.184

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-260. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

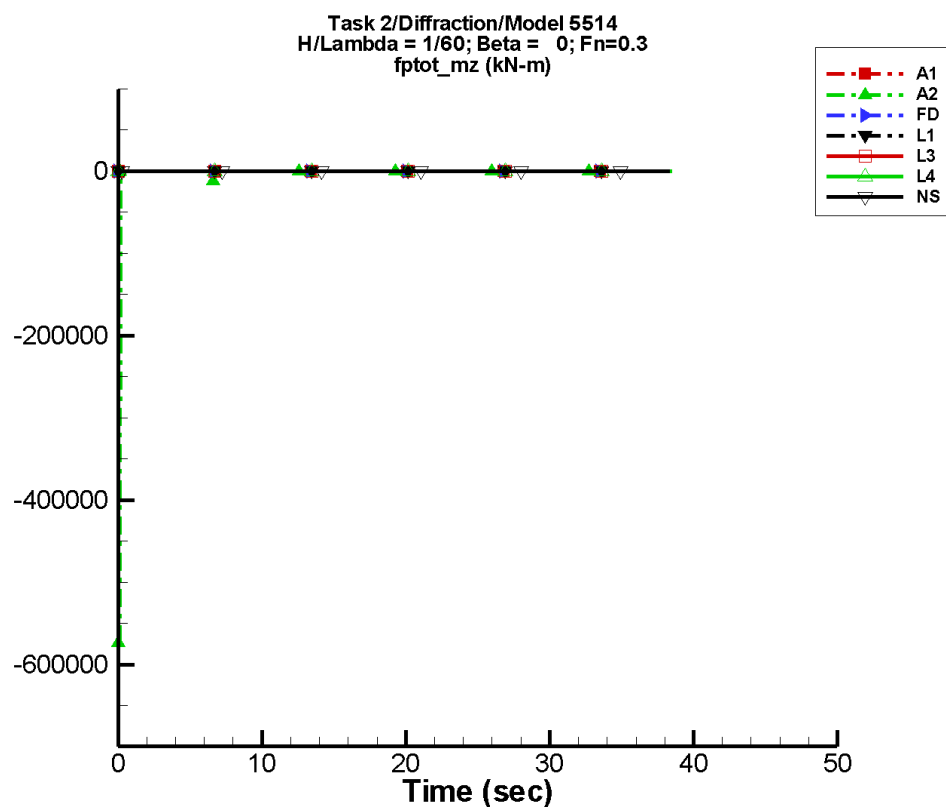
Table H-519. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.793	210.	19	1.03	31
A2	2.94E+07	5.63E+07	176	5.16E+07	-89
FD	1.83E-03	7.92E-02	20	1.09E-03	-5
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-520. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-222.	228.	-219.	227.
A2	-7.78E+05	2.67E+09	-3.05E+07	3.57E+08
FD	-0.166	0.194	-7.31E-02	8.59E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-261. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-521. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

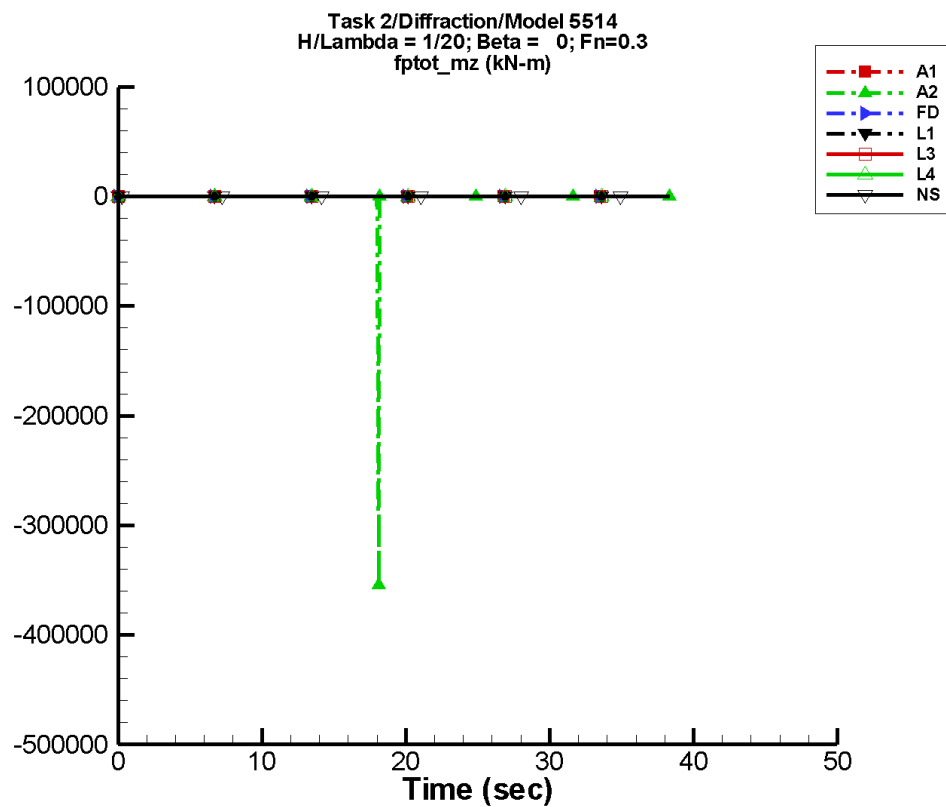
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.43E-02	5.15	-90	0.677	-127
A2	-30.5	68.8	-148	79.3	151
FD	1.06E-04	1.72E-04	-86	9.21E-05	-87
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	6.17E-03	1.30E-02	150	1.92E-02	-148

Table H-522. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-15.8	16.7	-7.73	5.80
A2	-1.20E+04	16.7	-1.61E+03	137.
FD	-4.75E-03	7.12E-03	-1.20E-03	1.35E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.127	0.108	-5.91E-02	7.84E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-262. Time history of  $M_z^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

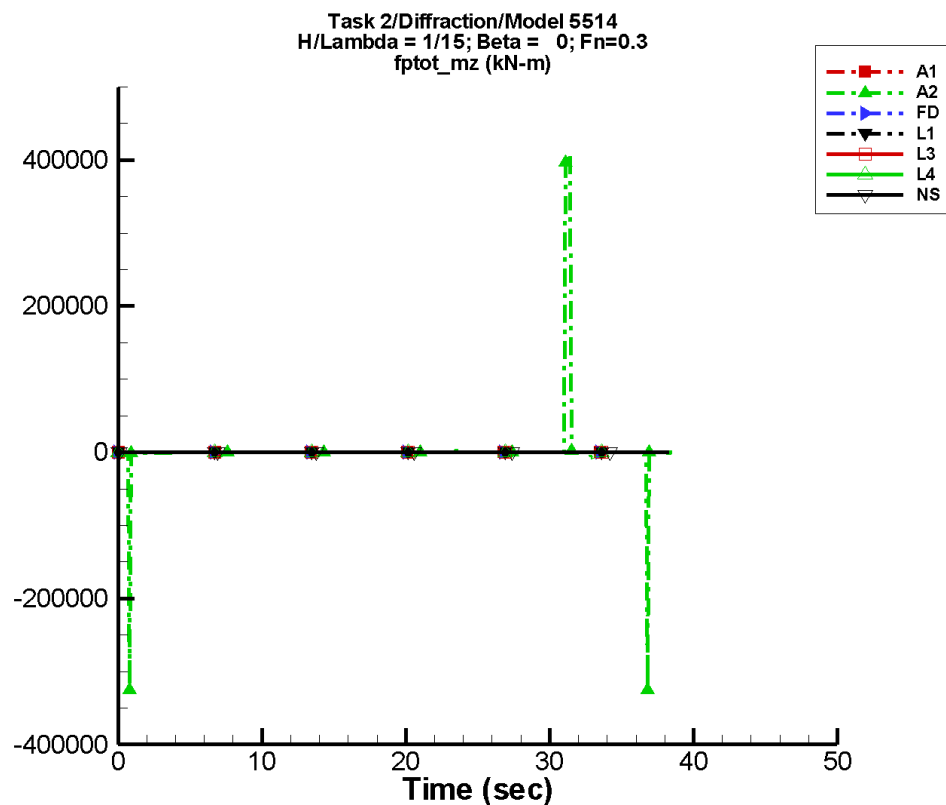
Table H-523. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.162	15.4	-90	2.02	-127
A2	-1.01E+03	1.90E+03	111	1.72E+03	-60
FD	7.72E-05	1.07E-04	-8	6.33E-05	38
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.08E-02	6.57E-02	151	3.44E-02	37

Table H-524. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-47.3	50.1	-23.1	17.3
A2	-3.54E+05	50.1	-4.87E+04	4.18E+03
FD	-5.90E-03	6.05E-03	-2.05E-03	1.54E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.542	0.622	-0.409	0.519

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-263. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

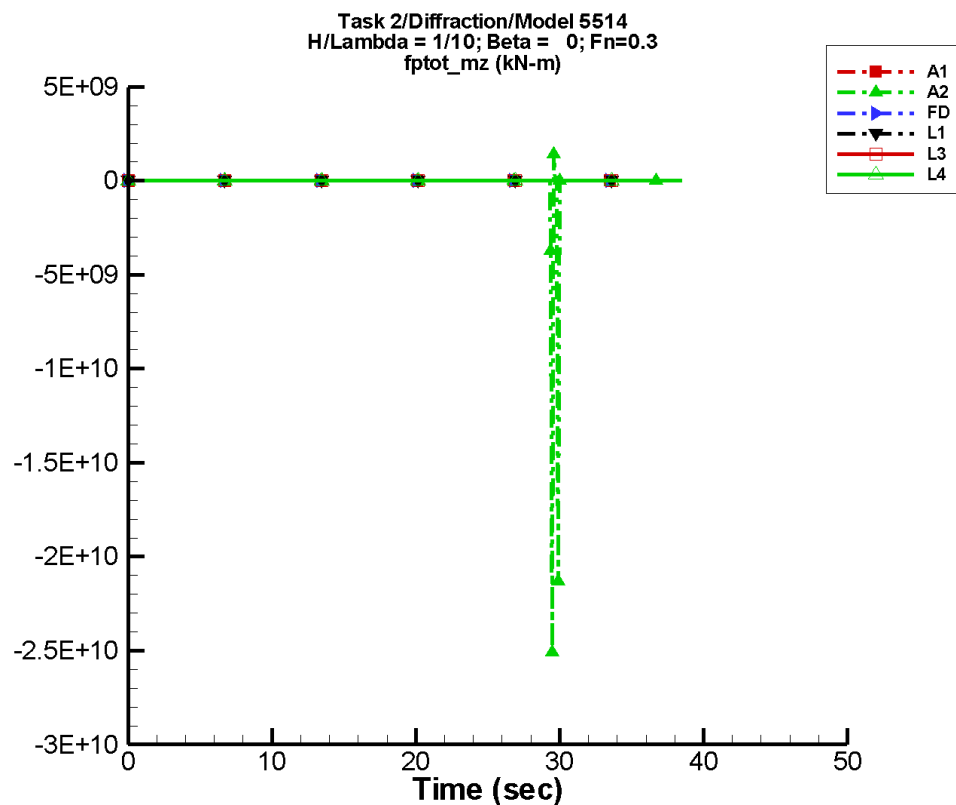
Table H-525. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.216	20.5	-90	2.69	-127
A2	2.57E+03	7.02E+03	-174	1.02E+04	-104
FD	-3.24E-05	1.94E-04	85	1.42E-04	105
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.68E-03	6.29E-02	101	0.159	168

Table H-526. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-63.0	66.7	-30.8	23.1
A2	-3.25E+05	4.09E+05	-4.48E+04	2.04E+05
FD	-9.00E-03	6.47E-03	-2.08E-03	2.26E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.513	0.665	-0.393	0.519

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-264. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

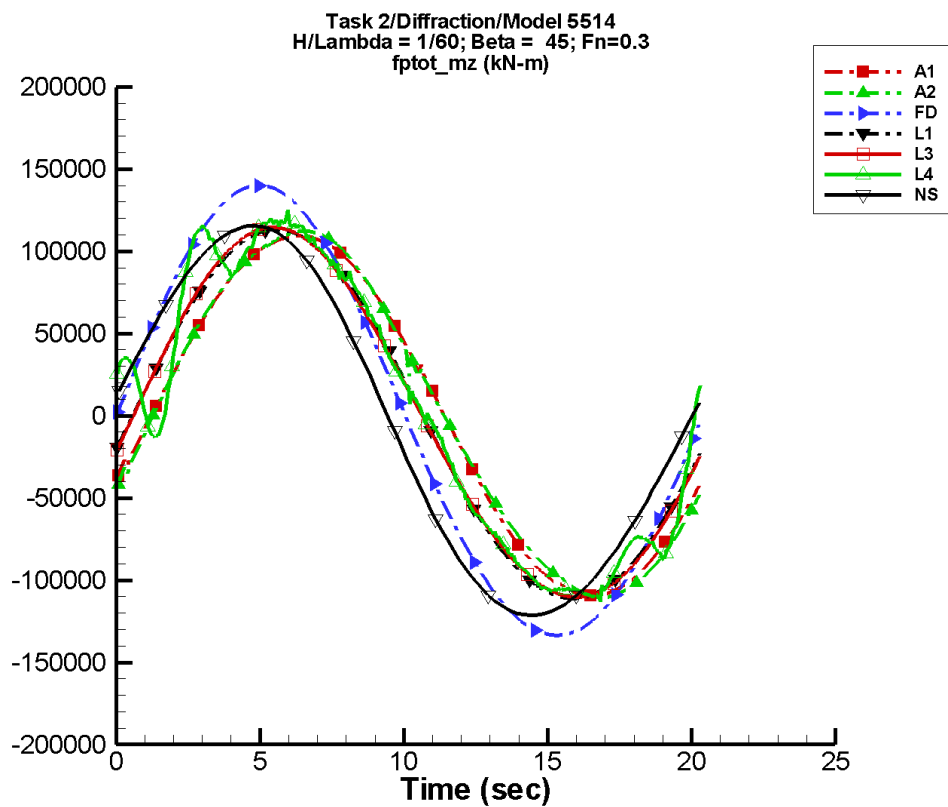
Table H-527. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.325	30.8	-90	4.05	-127
A2	-1.32E+08	2.56E+08	-6	2.26E+08	88
FD	7.60E-05	2.30E-04	124	1.21E-04	-30
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-528. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-94.7	100.	-46.2	34.7
A2	-2.51E+10	1.42E+09	-5.42E+09	2.47E+08
FD	-6.62E-03	9.74E-03	-3.18E-03	2.76E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-265. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-529. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

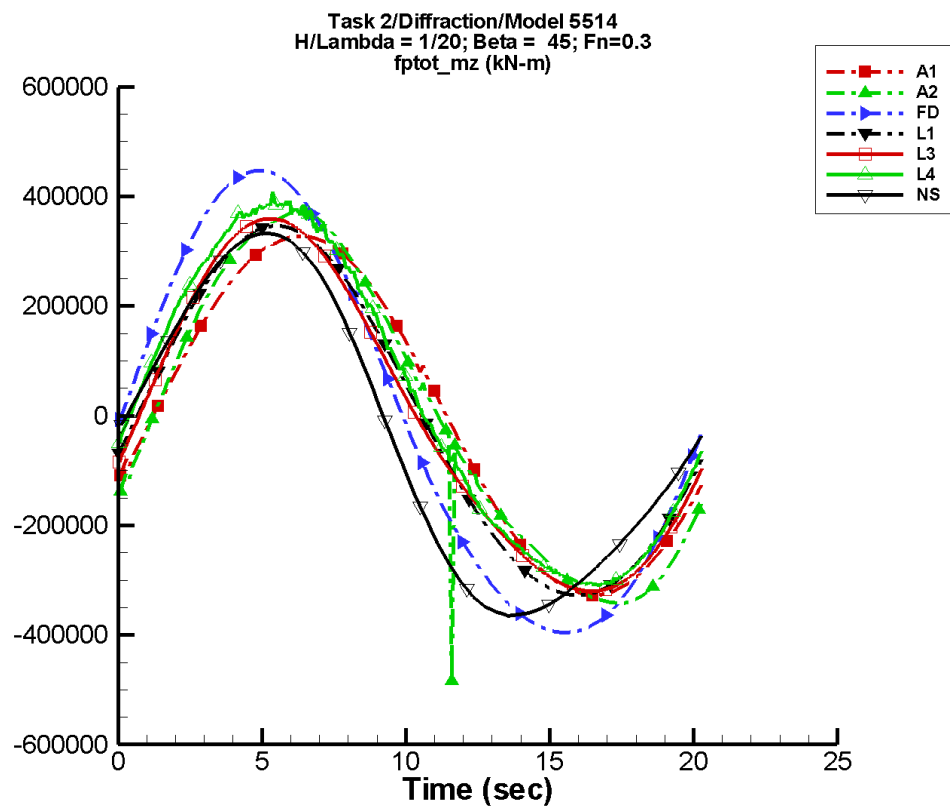
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-80.7	1.10E+05	-30	170.	-65
A2	-149.	1.10E+05	-31	3.44E+03	-82
FD	-79.0	1.37E+05	-11	3.79E+03	-82
L1	-285.	1.12E+05	-13	1.50E+03	-86
L3	-282.	1.12E+05	-13	3.91E+03	-64
L4	2.87E+03	1.12E+05	-12	1.53E+03	-72
NF	—	—	—	—	—
NS	-5.29E+03	1.18E+05	9	5.04E+03	-135

Table H-530. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.10E+05	1.10E+05	-1.09E+05	1.09E+05
A2	-1.10E+05	1.12E+05	-1.10E+05	1.12E+05
FD	-1.34E+05	1.40E+05	-1.33E+05	1.40E+05
L1	-1.11E+05	1.13E+05	-1.11E+05	1.13E+05
L3	-1.10E+05	1.15E+05	-1.10E+05	1.14E+05
L4	-1.13E+05	1.25E+05	-1.09E+05	1.18E+05
NF	—	—	—	—
NS	-1.21E+05	1.16E+05	-1.20E+05	1.16E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-266. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

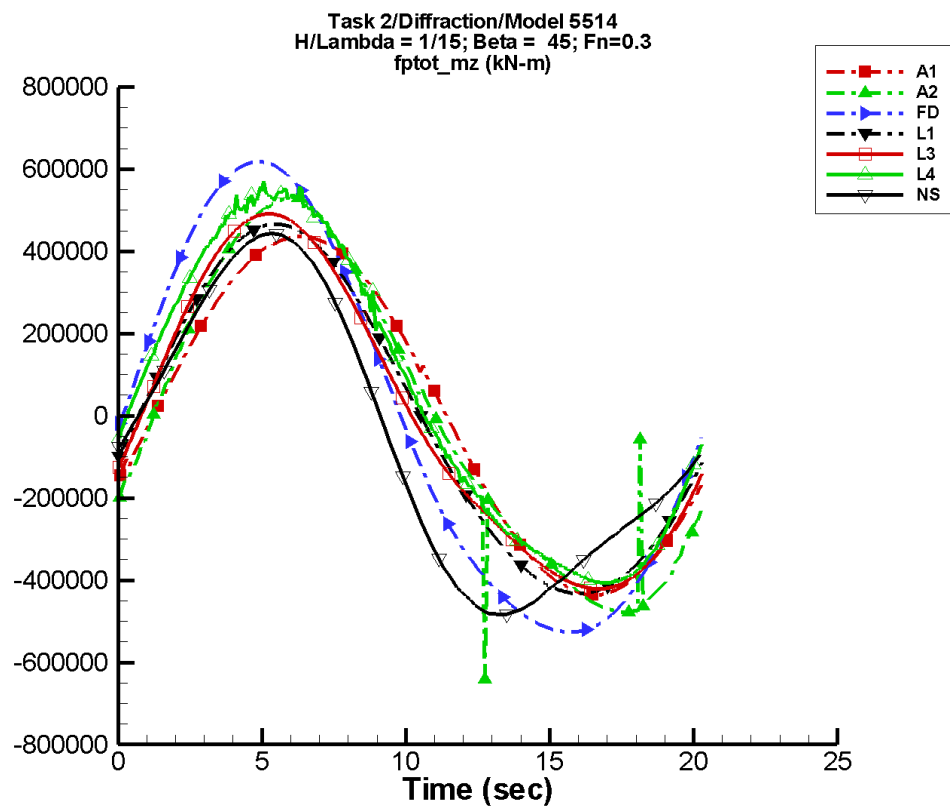
Table H-531. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-241.	3.28E+05	-30	510.	-65
A2	-2.26E+03	3.49E+05	-28	3.33E+04	-95
FD	-37.9	4.24E+05	-10	3.07E+04	-84
L1	-2.66E+03	3.37E+05	-13	1.39E+04	-86
L3	-2.55E+03	3.36E+05	-13	3.54E+04	-70
L4	2.37E+04	3.49E+05	-13	2.51E+04	-68
NF	—	—	—	—	—
NS	-3.89E+04	3.41E+05	8	4.87E+04	-130

Table H-532. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.28E+05	3.28E+05	-3.27E+05	3.27E+05
A2	-4.84E+05	3.73E+05	-3.41E+05	3.71E+05
FD	-3.95E+05	4.47E+05	-3.95E+05	4.46E+05
L1	-3.27E+05	3.46E+05	-3.27E+05	3.46E+05
L3	-3.20E+05	3.59E+05	-3.20E+05	3.59E+05
L4	-3.09E+05	4.09E+05	-3.08E+05	3.89E+05
NF	—	—	—	—
NS	-3.65E+05	3.33E+05	-3.61E+05	3.32E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-267. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

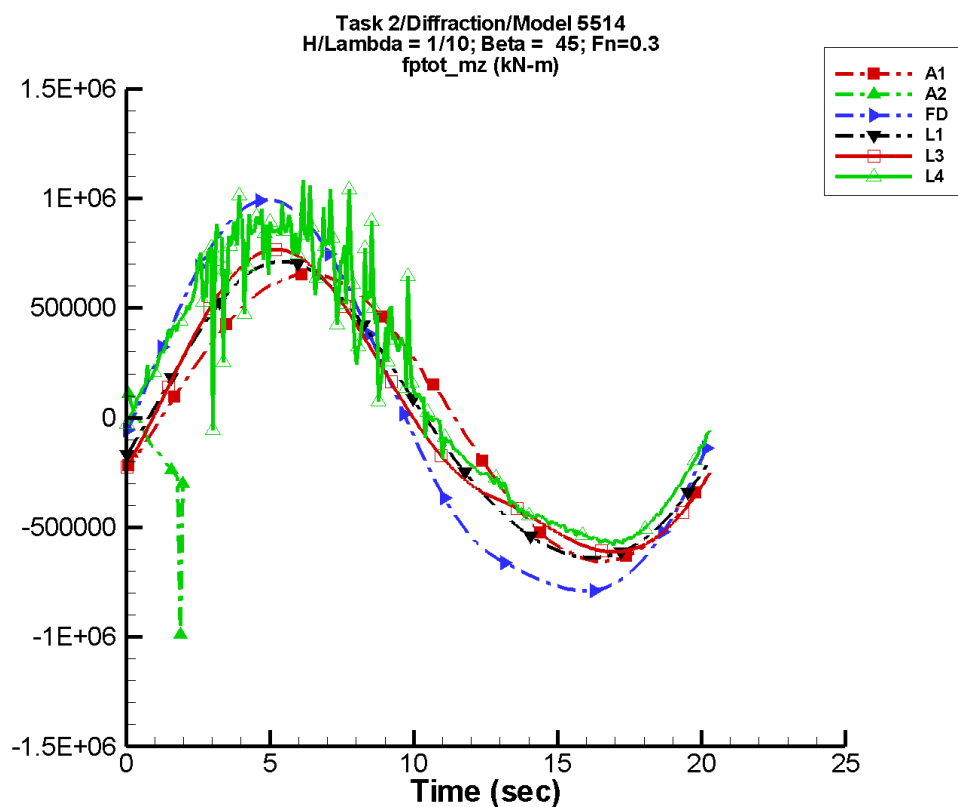
Table H-533. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-321.	4.37E+05	-30	679.	-65
A2	-1.38E+03	4.85E+05	-24	5.97E+04	-88
FD	127.	5.78E+05	-10	5.38E+04	-86
L1	-4.75E+03	4.49E+05	-13	2.48E+04	-86
L3	-4.44E+03	4.48E+05	-13	6.16E+04	-73
L4	4.43E+04	4.75E+05	-13	4.31E+04	-70
NF	—	—	—	—	—
NS	-6.09E+04	4.33E+05	7	9.86E+04	-130

Table H-534. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.36E+05	4.36E+05	-4.35E+05	4.35E+05
A2	-6.42E+05	5.32E+05	-4.79E+05	5.29E+05
FD	-5.26E+05	6.17E+05	-5.25E+05	6.16E+05
L1	-4.33E+05	4.66E+05	-4.32E+05	4.66E+05
L3	-4.21E+05	4.91E+05	-4.21E+05	4.90E+05
L4	-4.07E+05	5.70E+05	-4.06E+05	5.44E+05
NF	—	—	—	—
NS	-4.84E+05	4.43E+05	-4.81E+05	4.39E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-268. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

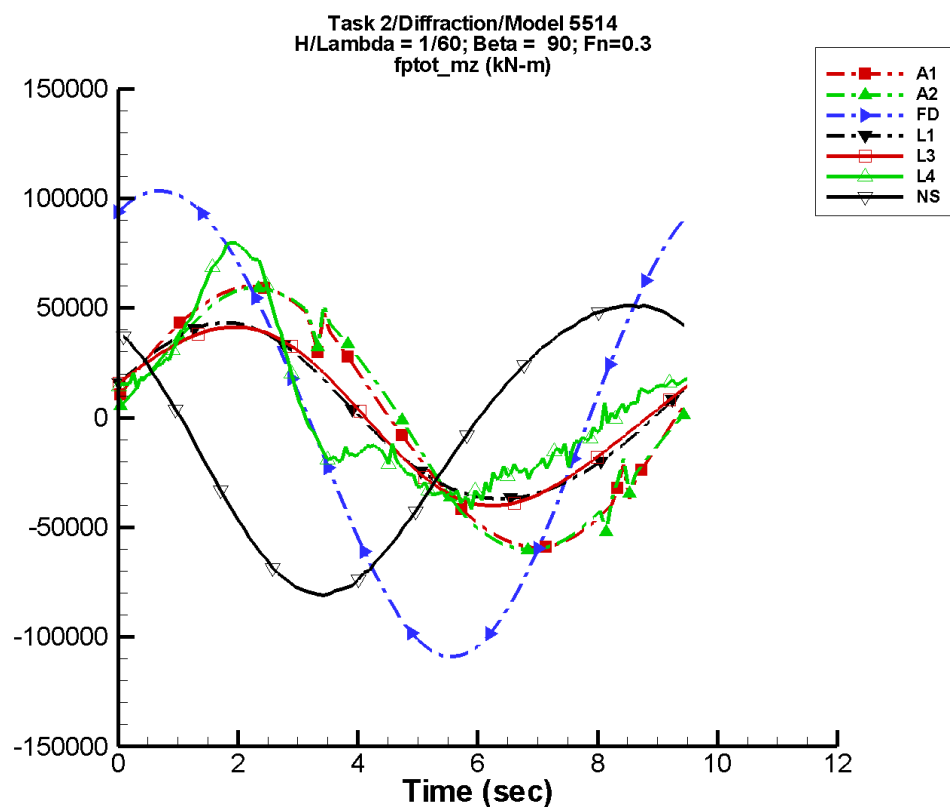
Table H-535. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-483.	6.56E+05	-30	1.02E+03	-65
A2	4.74E+05	8.11E+05	-87	6.18E+05	133
FD	409.	9.01E+05	-10	1.11E+05	-97
L1	-1.07E+04	6.74E+05	-13	5.61E+04	-86
L3	-1.02E+04	6.66E+05	-13	1.27E+05	-82
L4	1.09E+05	7.14E+05	-11	6.96E+04	-64
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-536. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.56E+05	6.56E+05	-6.54E+05	6.54E+05
A2	-9.90E+05	3.59E+05	-3.84E+05	3.54E+05
FD	-7.90E+05	9.93E+05	-7.89E+05	9.91E+05
L1	-6.38E+05	7.13E+05	-6.38E+05	7.12E+05
L3	-6.12E+05	7.67E+05	-6.11E+05	7.66E+05
L4	-5.83E+05	1.08E+06	-5.68E+05	8.91E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-269. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-537. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

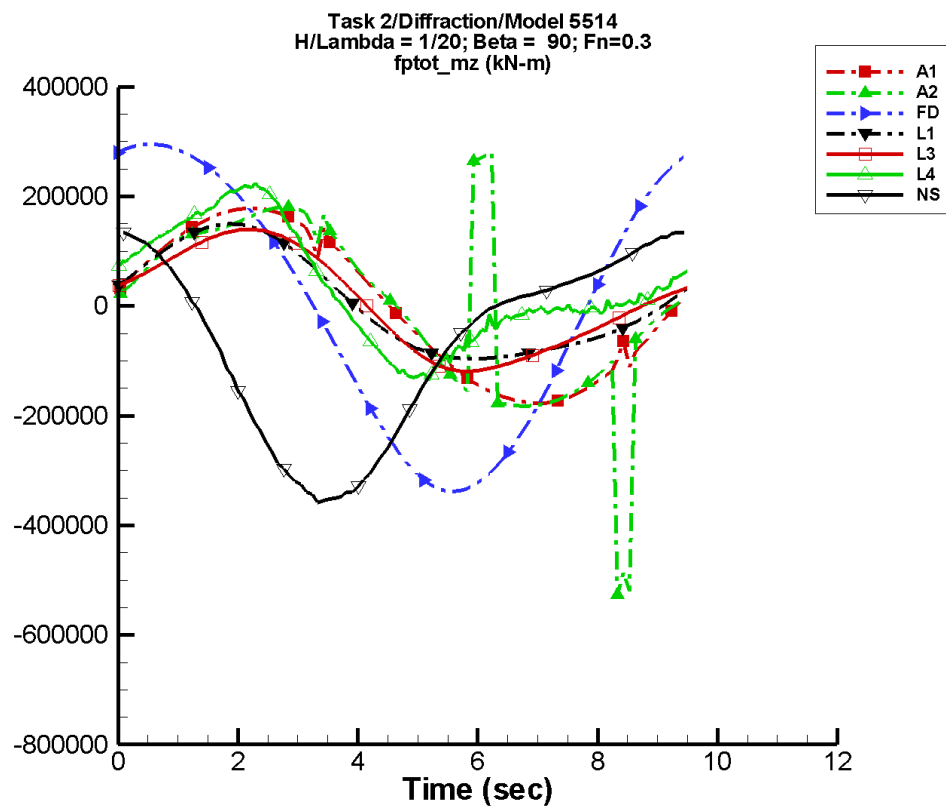
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-59.9	5.92E+04	3	56.1	-54
A2	-198.	5.88E+04	0	3.35E+03	168
FD	-1.42	1.06E+05	56	3.28E+03	169
L1	811.	4.01E+04	22	2.65E+03	-73
L3	807.	4.02E+04	22	3.26E+03	-140
L4	3.72E+03	4.16E+04	35	1.53E+04	-67
NF	—	—	—	—	—
NS	-9.76E+03	6.54E+04	137	6.63E+03	43

Table H-538. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.92E+04	5.97E+04	-5.85E+04	5.92E+04
A2	-6.03E+04	5.92E+04	-5.95E+04	5.86E+04
FD	-1.09E+05	1.04E+05	-1.08E+05	1.02E+05
L1	-3.70E+04	4.33E+04	-3.69E+04	4.31E+04
L3	-4.01E+04	4.14E+04	-3.99E+04	4.12E+04
L4	-4.17E+04	7.97E+04	-3.67E+04	7.78E+04
NF	—	—	—	—
NS	-8.08E+04	5.11E+04	-7.96E+04	5.07E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-270. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

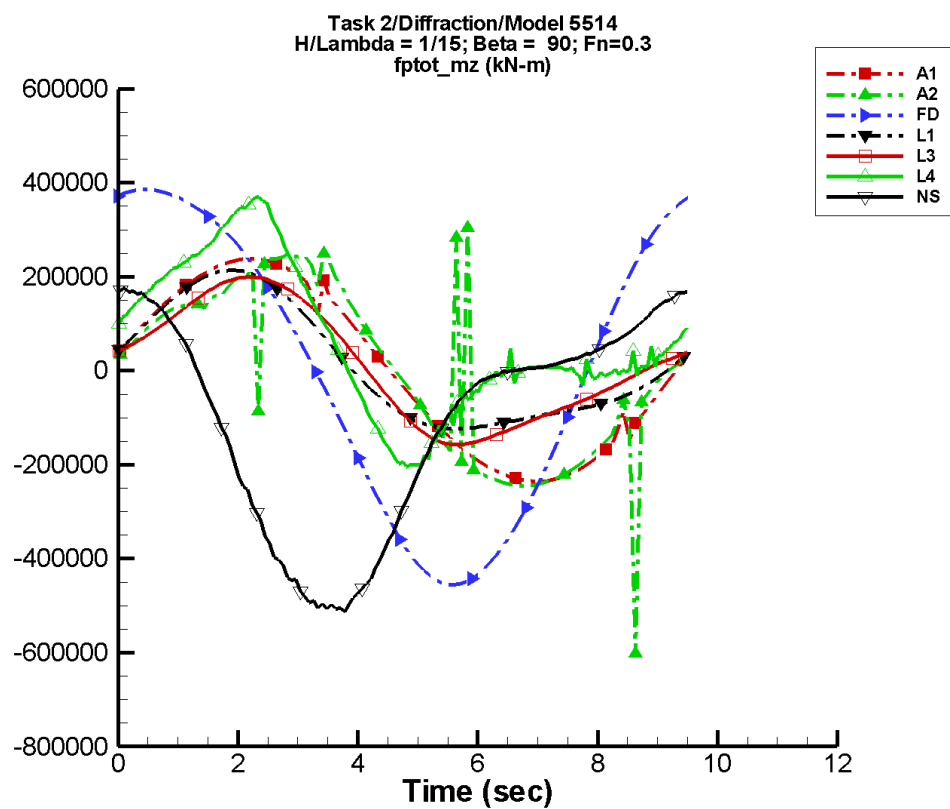
Table H-539. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-179.	1.77E+05	3	168.	-54
A2	6.97E+03	1.62E+05	-9	4.36E+04	-2
FD	49.8	3.15E+05	56	2.57E+04	169
L1	7.29E+03	1.20E+05	22	2.39E+04	-73
L3	7.20E+03	1.20E+05	21	2.61E+04	-129
L4	3.48E+04	1.25E+05	36	6.53E+04	-79
NF	—	—	—	—	—
NS	-6.94E+04	2.17E+05	128	7.26E+04	25

Table H-540. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.77E+05	1.79E+05	-1.75E+05	1.77E+05
A2	-5.27E+05	6.30E+05	-2.49E+05	1.77E+05
FD	-3.38E+05	2.95E+05	-3.34E+05	2.93E+05
L1	-9.63E+04	1.50E+05	-9.60E+04	1.49E+05
L3	-1.19E+05	1.40E+05	-1.18E+05	1.39E+05
L4	-1.36E+05	2.30E+05	-1.27E+05	2.17E+05
NF	—	—	—	—
NS	-3.59E+05	1.34E+05	-3.49E+05	1.32E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-271. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

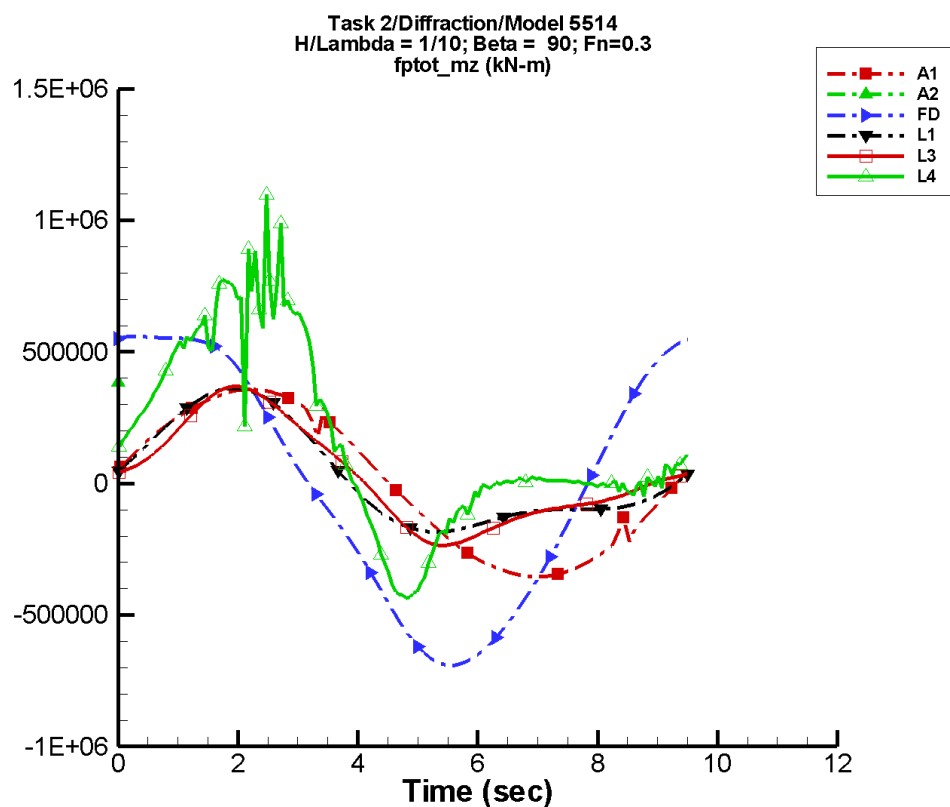
Table H-541. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-239.	2.36E+05	3	224.	-54
A2	1.20E+03	2.18E+05	-5	1.95E+04	112
FD	93.1	4.17E+05	56	4.19E+04	169
L1	1.30E+04	1.60E+05	22	4.25E+04	-73
L3	1.28E+04	1.59E+05	21	4.36E+04	-122
L4	6.36E+04	1.81E+05	33	1.13E+05	-79
NF	—	—	—	—	—
NS	-1.10E+05	2.88E+05	127	1.21E+05	24

Table H-542. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.36E+05	2.38E+05	-2.33E+05	2.36E+05
A2	-6.02E+05	3.04E+05	-2.49E+05	2.36E+05
FD	-4.55E+05	3.86E+05	-4.49E+05	3.85E+05
L1	-1.23E+05	2.14E+05	-1.23E+05	2.12E+05
L3	-1.58E+05	1.99E+05	-1.56E+05	1.98E+05
L4	-2.06E+05	3.70E+05	-1.98E+05	3.58E+05
NF	—	—	—	—
NS	-5.13E+05	1.76E+05	-5.03E+05	1.74E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-272. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

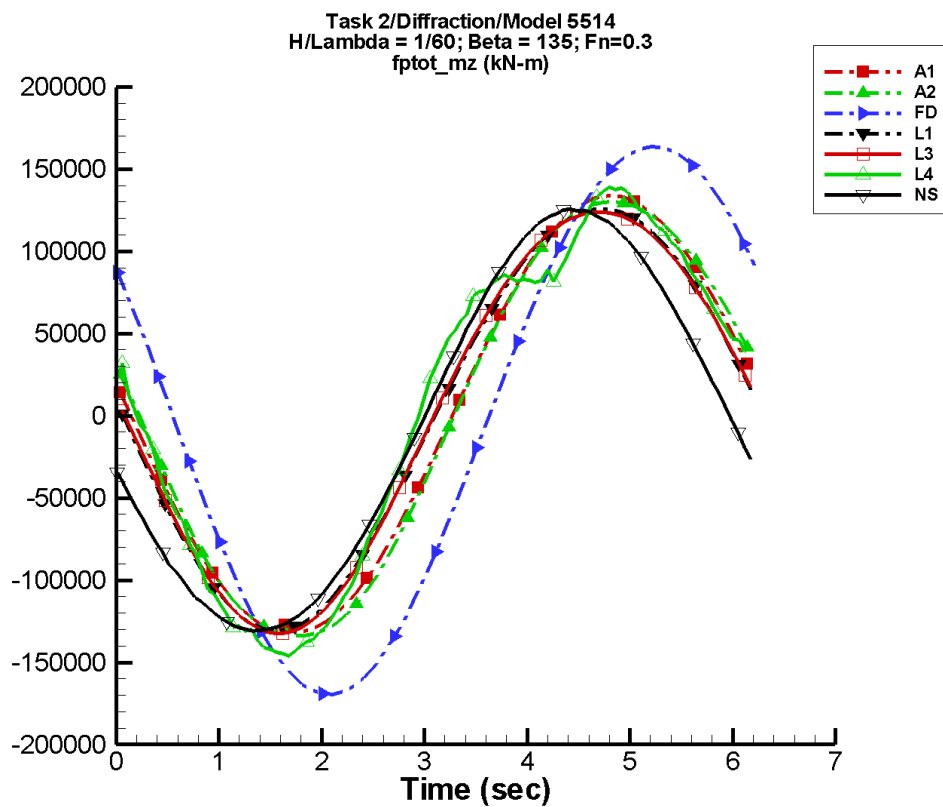
Table H-543. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-359.	3.54E+05	3	336.	-54
A2	-2.95E+05	1.04E+06	-76	8.39E+05	-30
FD	-666.	6.26E+05	56	5.14E+04	170
L1	2.92E+04	2.41E+05	22	9.57E+04	-73
L3	2.82E+04	2.40E+05	21	8.92E+04	-99
L4	1.56E+05	3.84E+05	24	2.66E+05	-82
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-544. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.54E+05	3.57E+05	-3.50E+05	3.54E+05
A2	3.85E+05	4.05E+05	3.85E+05	4.05E+05
FD	-6.91E+05	5.59E+05	-6.80E+05	5.63E+05
L1	-1.84E+05	3.61E+05	-1.83E+05	3.59E+05
L3	-2.36E+05	3.68E+05	-2.33E+05	3.64E+05
L4	-4.38E+05	1.10E+06	-4.19E+05	7.96E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-273. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-545. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

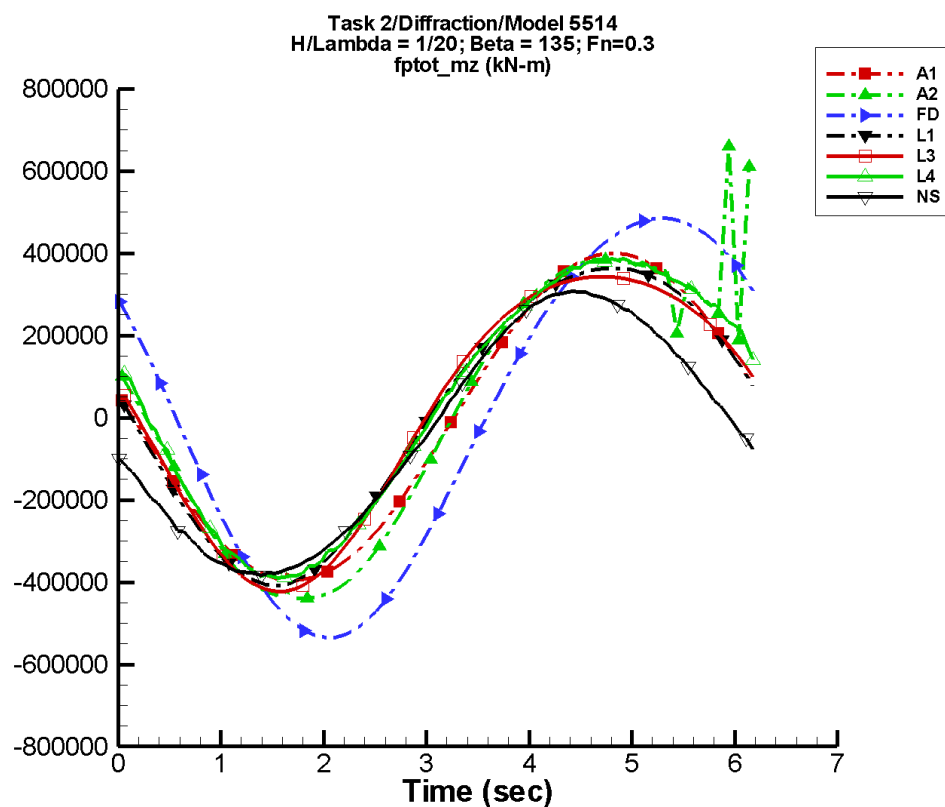
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	152.	1.33E+05	164	877.	-103
A2	50.4	1.34E+05	162	2.83E+03	37
FD	-125.	1.66E+05	127	3.50E+03	19
L1	1.20E+03	1.28E+05	168	4.12E+03	93
L3	1.20E+03	1.28E+05	168	5.56E+03	67
L4	5.28E+03	1.32E+05	168	1.98E+04	79
NF	—	—	—	—	—
NS	-6.22E+03	1.28E+05	-170	3.54E+03	-55

Table H-546. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.32E+05	1.34E+05	-1.28E+05	1.30E+05
A2	-1.34E+05	1.30E+05	-1.31E+05	1.27E+05
FD	-1.70E+05	1.63E+05	-1.65E+05	1.59E+05
L1	-1.31E+05	1.26E+05	-1.29E+05	1.25E+05
L3	-1.33E+05	1.24E+05	-1.31E+05	1.23E+05
L4	-1.46E+05	1.39E+05	-1.42E+05	1.35E+05
NF	—	—	—	—
NS	-1.31E+05	1.26E+05	-1.31E+05	1.24E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-274. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

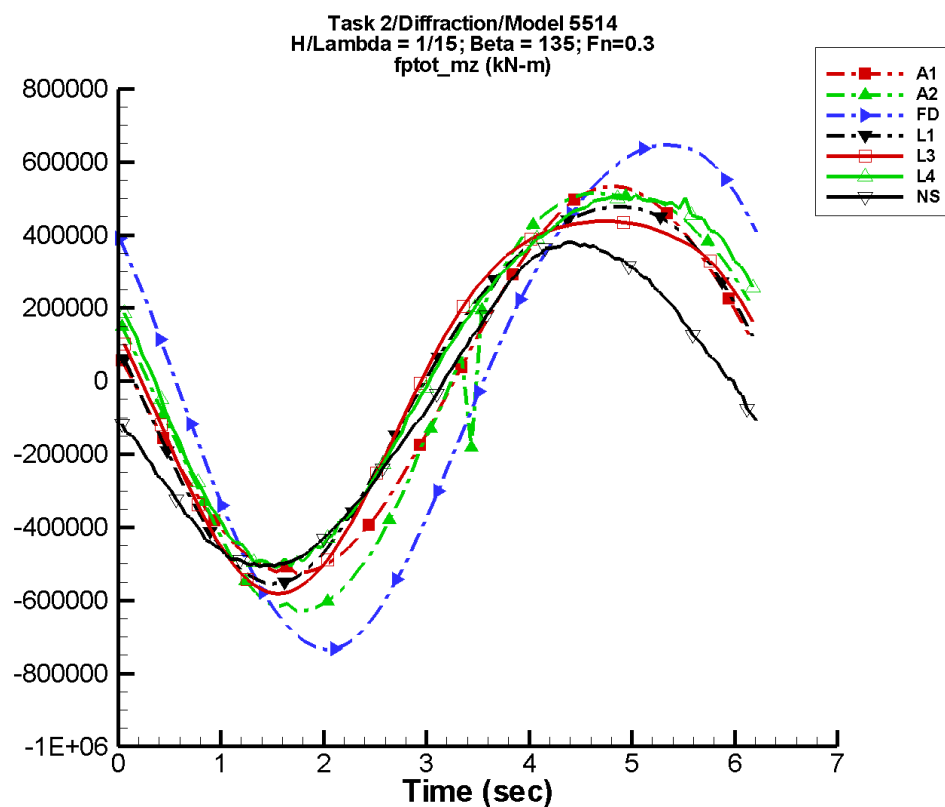
Table H-547. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	455.	3.98E+05	164	2.62E+03	-103
A2	8.49E+03	4.33E+05	159	4.72E+04	68
FD	-394.	5.11E+05	128	2.95E+04	19
L1	1.04E+04	3.84E+05	168	3.64E+04	92
L3	1.03E+04	3.84E+05	168	5.19E+04	70
L4	3.28E+04	3.86E+05	163	4.36E+04	83
NF	—	—	—	—	—
NS	-4.24E+04	3.41E+05	-172	6.27E+03	-26

Table H-548. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.94E+05	4.00E+05	-3.84E+05	3.90E+05
A2	-4.40E+05	6.60E+05	-4.31E+05	3.79E+05
FD	-5.35E+05	4.85E+05	-5.20E+05	4.75E+05
L1	-4.07E+05	3.64E+05	-4.03E+05	3.61E+05
L3	-4.23E+05	3.43E+05	-4.18E+05	3.41E+05
L4	-3.90E+05	3.87E+05	-3.84E+05	3.82E+05
NF	—	—	—	—
NS	-3.83E+05	3.08E+05	-3.79E+05	3.02E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-275. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

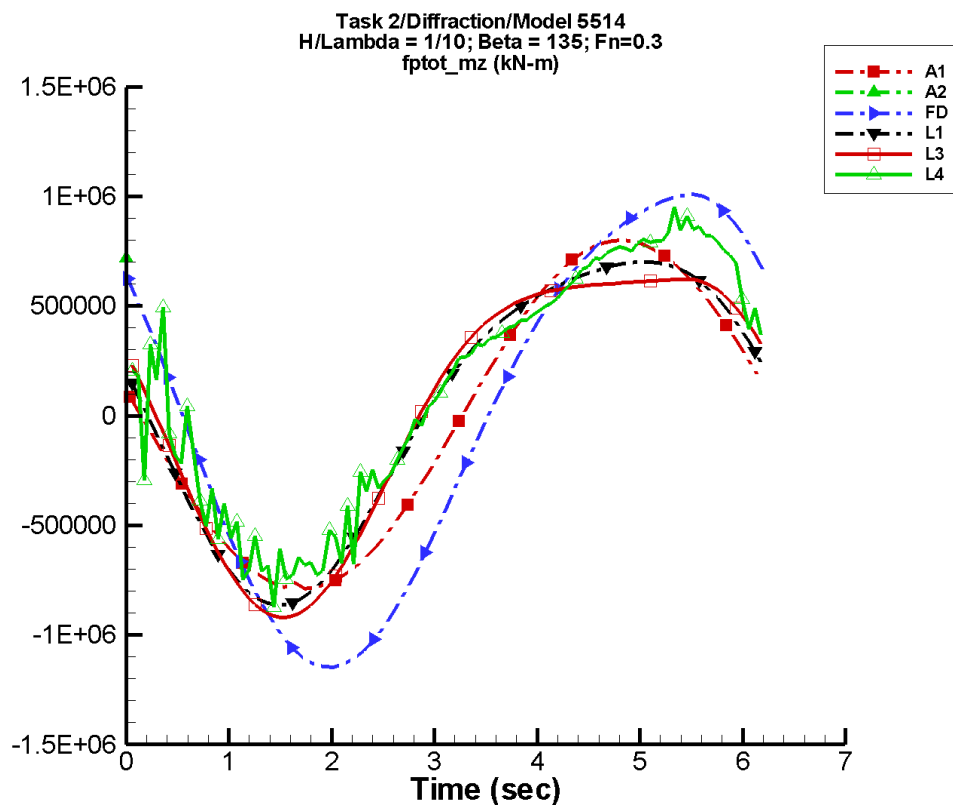
Table H-549. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	605.	5.30E+05	164	3.49E+03	-103
A2	-5.09E+03	5.86E+05	161	5.00E+04	42
FD	-604.	6.92E+05	128	5.17E+04	21
L1	1.84E+04	5.12E+05	168	6.46E+04	92
L3	1.82E+04	5.12E+05	168	9.28E+04	72
L4	5.80E+04	5.08E+05	161	7.48E+04	88
NF	—	—	—	—	—
NS	-6.43E+04	4.34E+05	-174	1.12E+04	25

Table H-550. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.25E+05	5.33E+05	-5.11E+05	5.19E+05
A2	-6.29E+05	5.15E+05	-6.13E+05	5.07E+05
FD	-7.34E+05	6.47E+05	-7.12E+05	6.36E+05
L1	-5.54E+05	4.78E+05	-5.47E+05	4.75E+05
L3	-5.81E+05	4.38E+05	-5.73E+05	4.36E+05
L4	-5.09E+05	5.10E+05	-4.96E+05	5.01E+05
NF	—	—	—	—
NS	-5.07E+05	3.81E+05	-5.02E+05	3.74E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-276. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

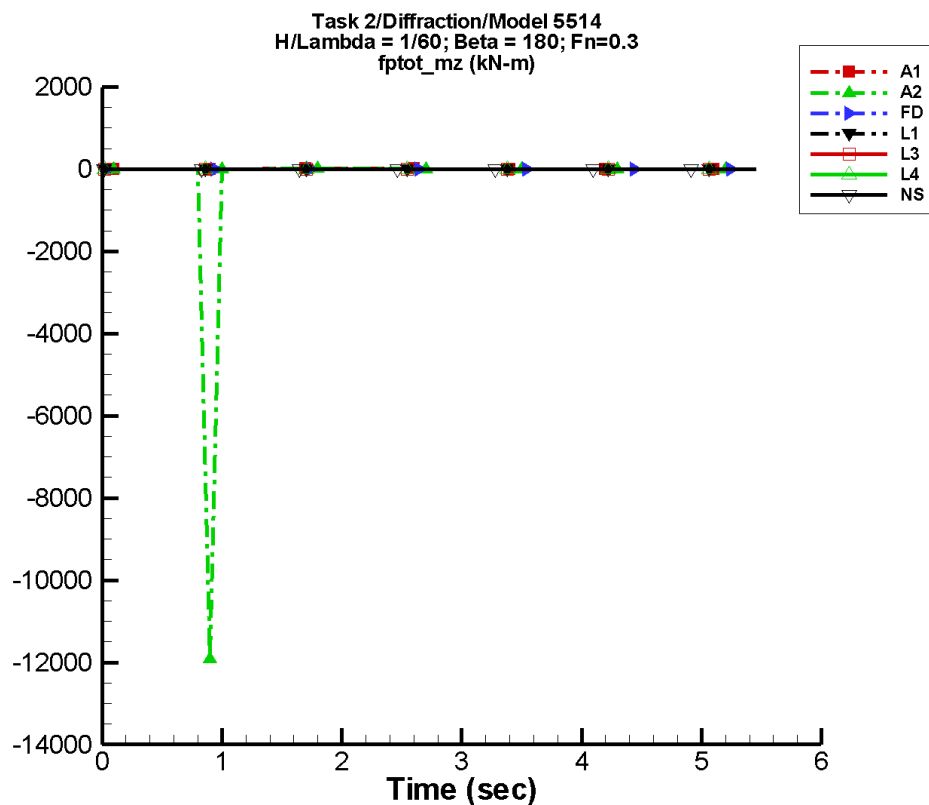
Table H-551. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	909.	7.96E+05	164	5.25E+03	-103
A2	6.22E+05	3.85E+05	-149	1.16E+05	96
FD	-909.	1.07E+06	129	1.07E+05	31
L1	4.13E+04	7.69E+05	168	1.45E+05	92
L3	4.08E+04	7.63E+05	168	2.06E+05	79
L4	1.32E+05	7.35E+05	160	1.58E+05	105
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-552. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.89E+05	8.00E+05	-7.68E+05	7.80E+05
A2	7.18E+05	7.33E+05	7.18E+05	7.33E+05
FD	-1.15E+06	1.01E+06	-1.11E+06	9.82E+05
L1	-8.64E+05	7.02E+05	-8.52E+05	6.98E+05
L3	-9.19E+05	6.23E+05	-9.05E+05	6.20E+05
L4	-8.71E+05	9.51E+05	-7.08E+05	8.61E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-277. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-553. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

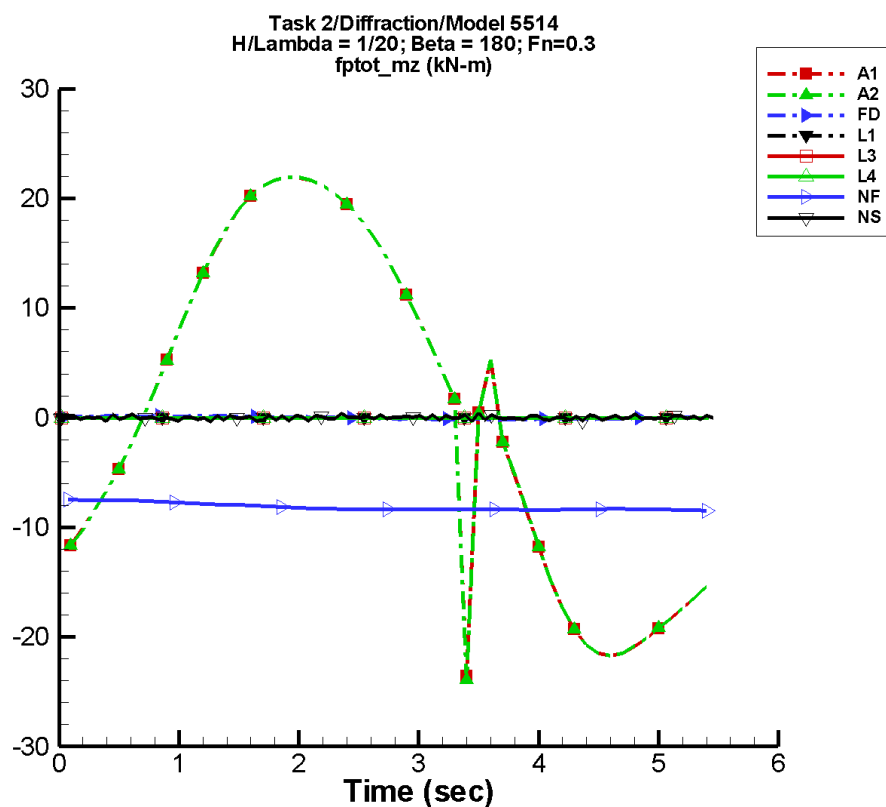
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.22E-02	7.09	-37	0.298	-113
A2	-145.	305.	-151	350.	150
FD	-8.63E-04	5.16E-02	119	6.30E-03	146
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.08E-03	1.87E-02	-150	1.39E-02	5

Table H-554. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.87	7.32	-6.94	7.08
A2	-1.19E+04	7.32	-1.59E+03	143.
FD	-6.67E-02	6.37E-02	-4.80E-02	5.61E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.147	0.167	-3.00E-02	3.52E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-278. Time history of  $M_z^{ptot}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

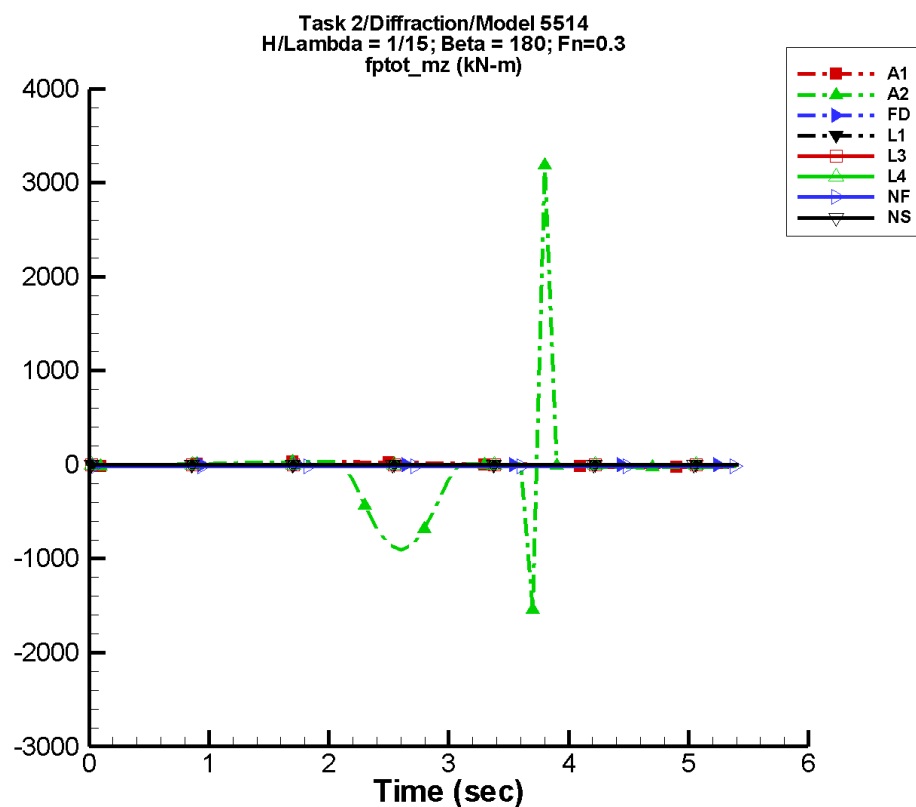
Table H-555. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.216	21.2	-37	0.890	-113
A2	0.219	21.2	-37	0.908	-113
FD	-7.82E-04	0.155	118	4.72E-03	88
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-8.44	0.313	175	0.183	140
NS	-1.06E-03	2.34E-02	-122	4.22E-02	98

Table H-556. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-23.6	21.9	-20.8	21.2
A2	-23.9	21.9	-20.7	21.2
FD	-0.220	0.189	-0.157	0.157
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-9.43	-7.48	-9.42	-7.47
NS	-0.402	0.488	-9.63E-02	5.66E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3 and LAMP-4.

Figure H-279. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

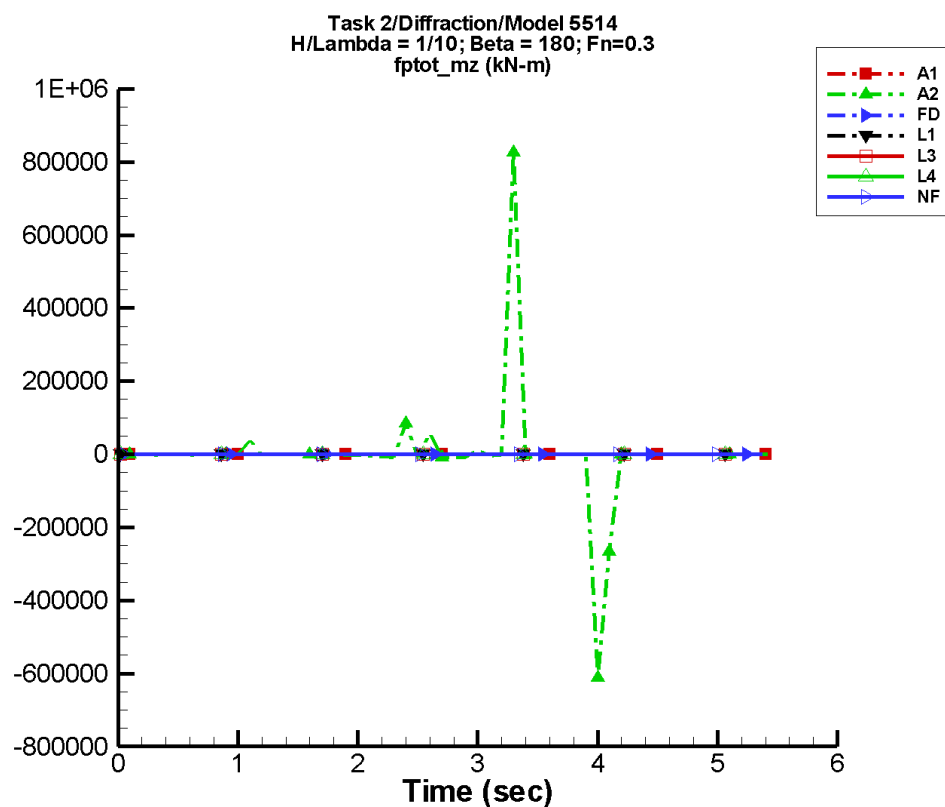
Table H-557. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.288	28.2	-37	1.19	-113
A2	-67.9	174.	121	229.	-58
FD	-6.34E-04	0.219	115	2.79E-02	-26
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-15.6	0.293	-168	0.584	174
NS	2.57E-03	3.95E-02	-168	4.07E-02	135

Table H-558. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-31.4	29.2	-27.6	28.2
A2	-1.55E+03	3.19E+03	-588.	230.
FD	-0.400	0.256	-0.282	0.218
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-18.8	-13.8	-17.3	-13.8
NS	-0.806	0.851	-0.156	0.112

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NSHIPMO.

Figure H-280. Time history of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

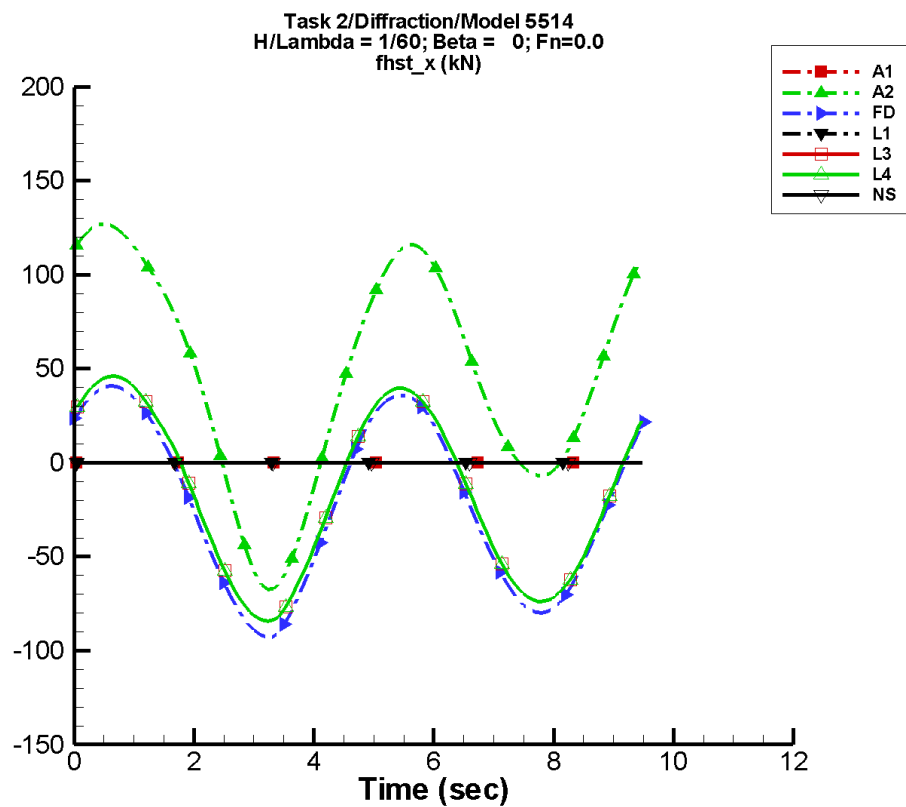
Table H-559. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.432	42.4	-37	1.78	-113
A2	-873.	3.15E+04	-57	4.36E+04	76
FD	8.83E-03	0.363	112	0.109	-41
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	-36.1	16.6	21	13.9	-61
NS	—	—	—	—	—

Table H-560. Minimum and maximum of  $M_z^{\text{ptot}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-47.1	43.8	-41.5	42.4
A2	-6.12E+05	8.26E+05	-1.20E+05	1.13E+05
FD	-0.730	0.552	-0.462	0.346
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	-83.1	41.3	-62.2	15.9
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-281. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-561. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

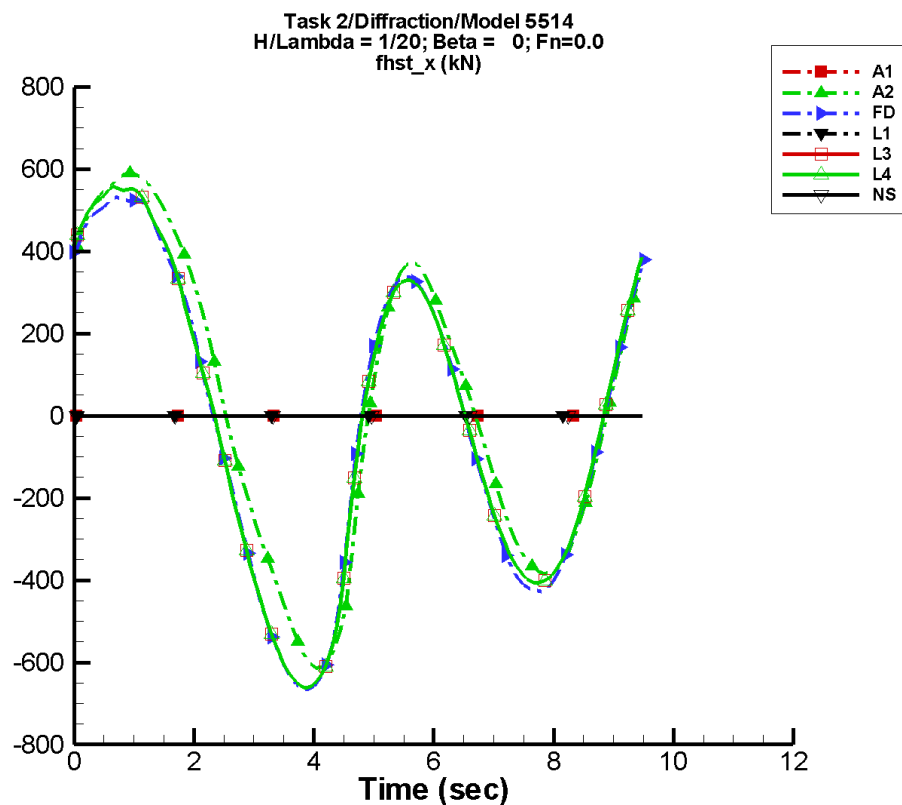
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	46.9	25.7	117	74.6	23
FD	-22.5	7.16	94	61.2	26
L1	—	—	—	—	—
L3	-16.6	6.21	82	59.9	29
L4	-16.6	6.21	82	59.9	29
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-562. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-67.4	127.	-60.5	124.
FD	-93.0	40.9	-89.0	38.4
L1	—	—	—	—
L3	-84.3	46.0	-83.0	45.2
L4	-84.3	46.0	-83.0	45.2
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-282. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

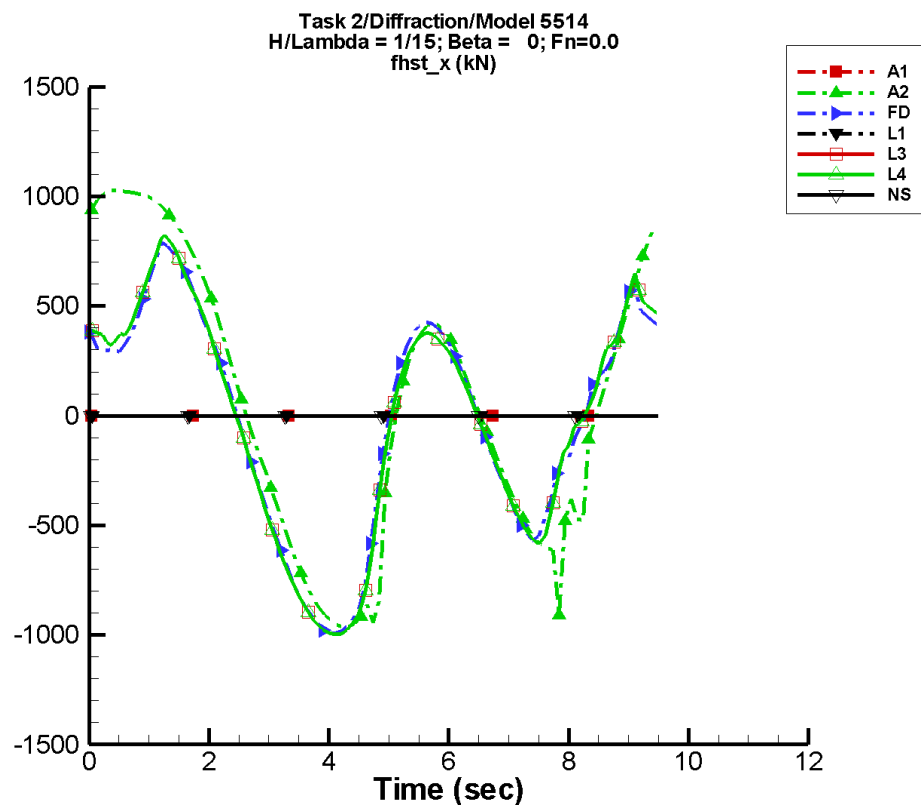
Table H-563. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	16.9	228.	66	431.	2
FD	-30.9	226.	72	443.	6
L1	—	—	—	—	—
L3	-17.2	228.	73	435.	12
L4	-17.2	228.	73	435.	12
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-564. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-613.	590.	-585.	577.
FD	-667.	533.	-647.	522.
L1	—	—	—	—
L3	-661.	557.	-652.	552.
L4	-661.	557.	-652.	552.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-283. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

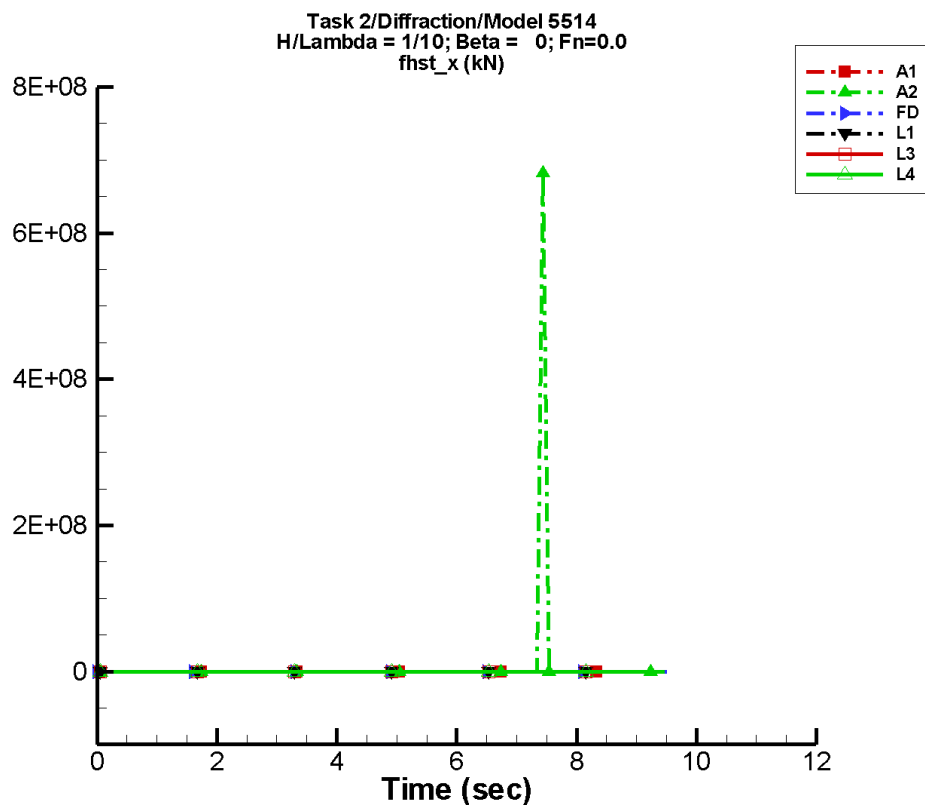
Table H-565. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	48.2	581.	70	579.	5
FD	-41.8	400.	82	459.	-10
L1	—	—	—	—	—
L3	-30.7	418.	82	438.	-3
L4	-30.7	418.	82	438.	-3
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-566. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-963.	1.03E+03	-955.	1.02E+03
FD	-995.	791.	-994.	690.
L1	—	—	—	—
L3	-997.	825.	-988.	766.
L4	-997.	825.	-988.	766.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-284. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

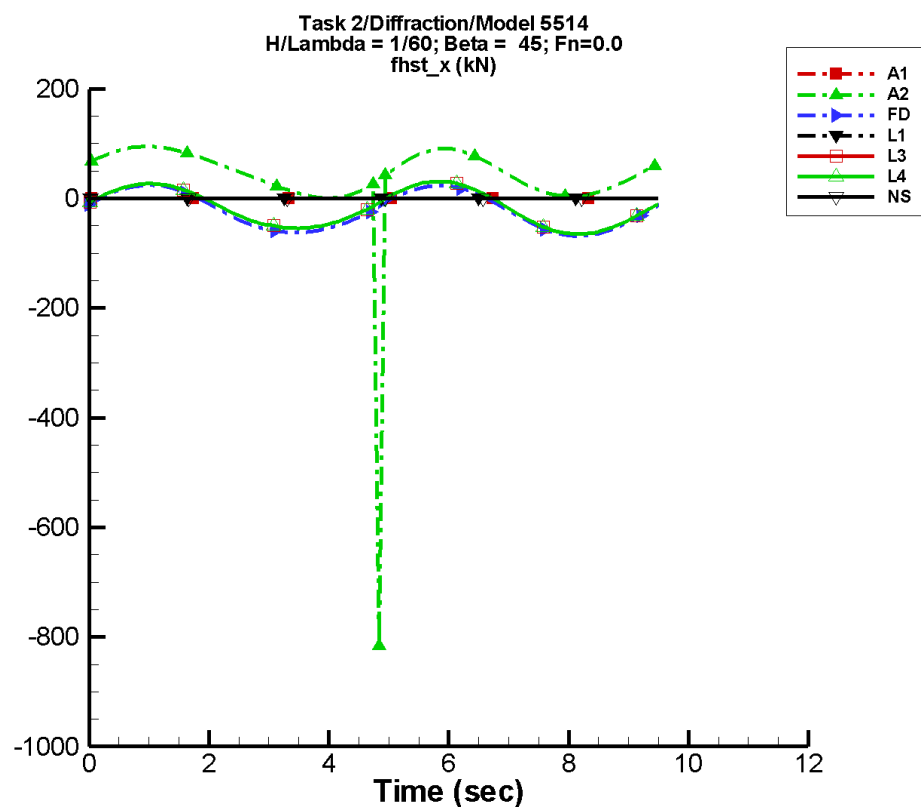
Table H-567. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	7.74E+06	1.41E+07	160	1.32E+07	-119
FD	-27.5	925.	166	1.16E+03	-101
L1	—	—	—	—	—
L3	-14.4	903.	164	1.10E+03	-101
L4	-14.4	903.	164	1.10E+03	-101
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-568. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.30E+03	6.82E+08	-7.77E+06	9.09E+07
FD	-1.41E+03	2.00E+03	-1.28E+03	1.90E+03
L1	—	—	—	—
L3	-1.41E+03	1.95E+03	-1.29E+03	1.90E+03
L4	-1.41E+03	1.95E+03	-1.29E+03	1.90E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-285. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-569. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

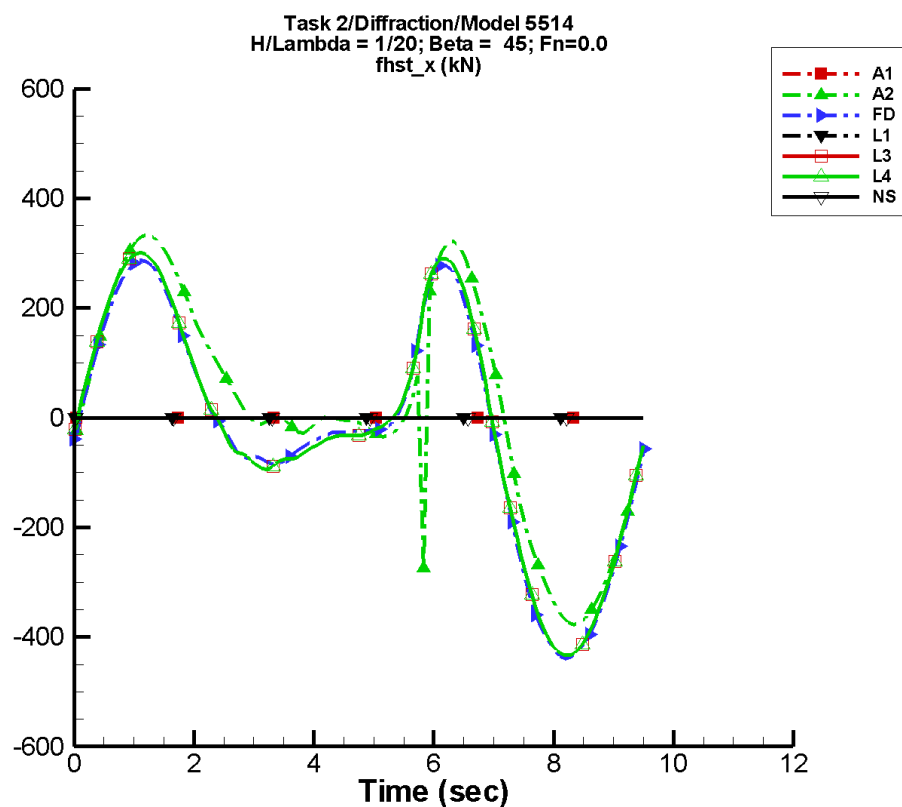
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	38.2	27.8	76	42.2	-28
FD	-22.0	1.29	27	44.4	1
L1	—	—	—	—	—
L3	-16.6	2.12	-52	44.5	4
L4	-16.6	2.12	-52	44.5	4
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-570. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-816.	94.9	-80.2	96.3
FD	-68.7	24.4	-66.7	22.4
L1	—	—	—	—
L3	-64.9	31.1	-64.2	30.3
L4	-64.9	31.1	-64.2	30.3
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-286. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

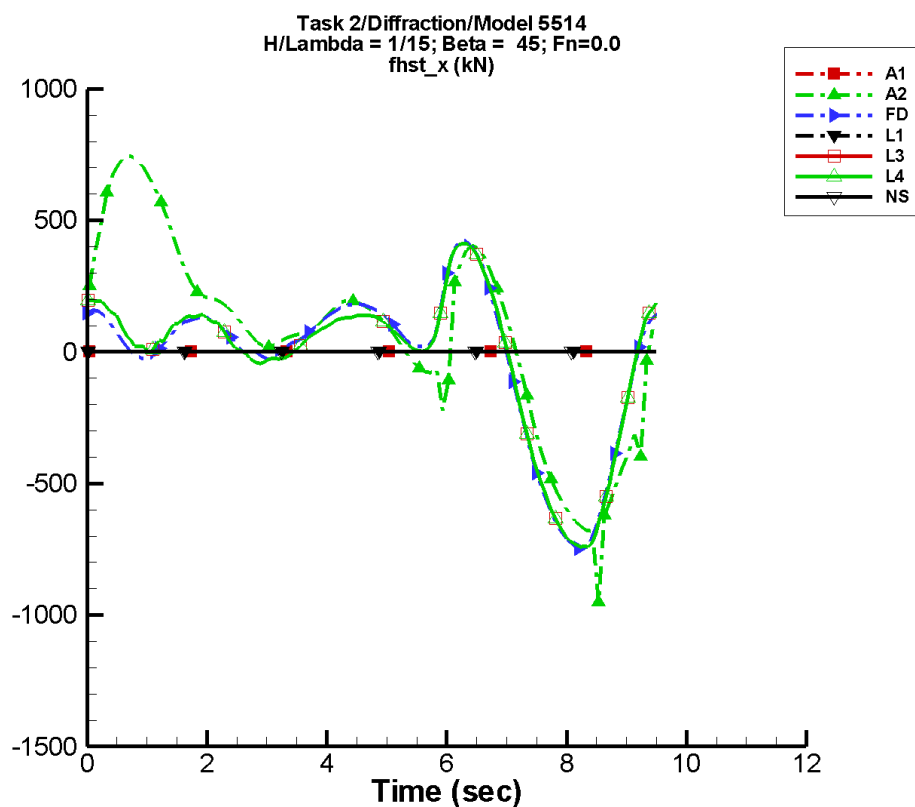
Table H-571. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	21.1	115.	-21	230.	-21
FD	-18.2	116.	-35	239.	-6
L1	—	—	—	—	—
L3	-15.7	105.	-26	257.	-5
L4	-15.7	105.	-26	257.	-5
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-572. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-378.	333.	-361.	316.
FD	-440.	287.	-423.	270.
L1	—	—	—	—
L3	-433.	301.	-428.	295.
L4	-433.	301.	-428.	295.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-287. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

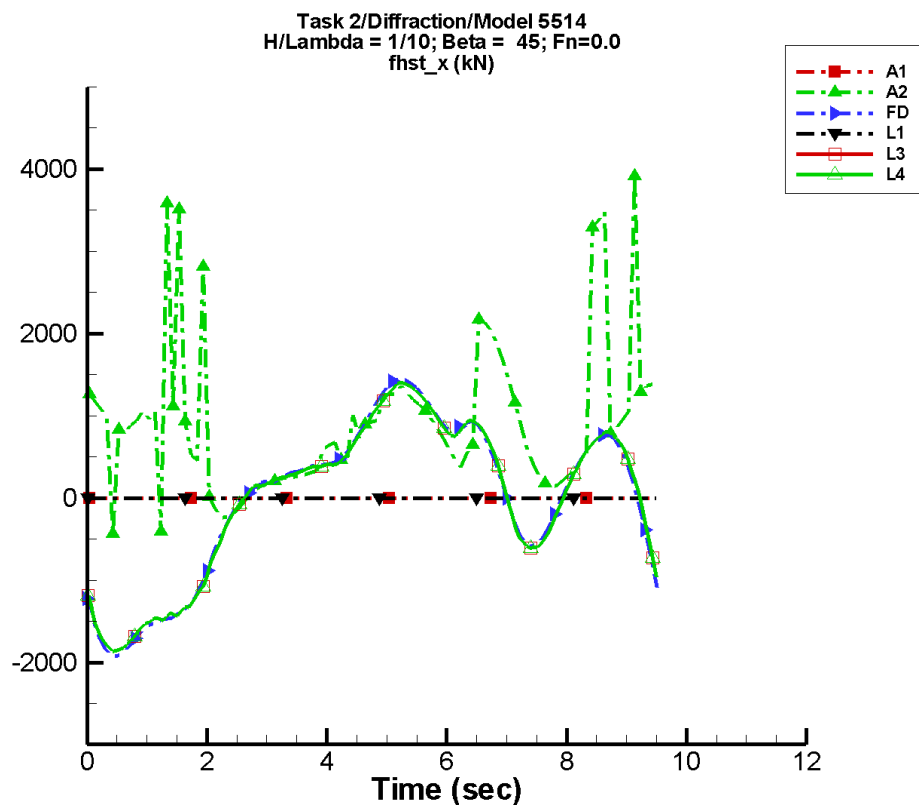
Table H-573. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	70.2	240.	-6	356.	6
FD	-19.7	229.	-59	215.	9
L1	—	—	—	—	—
L3	-26.0	190.	-54	238.	12
L4	-26.0	190.	-54	238.	12
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-574. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-950.	750.	-674.	707.
FD	-747.	422.	-703.	345.
L1	—	—	—	—
L3	-741.	411.	-729.	393.
L4	-741.	411.	-729.	393.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-288. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

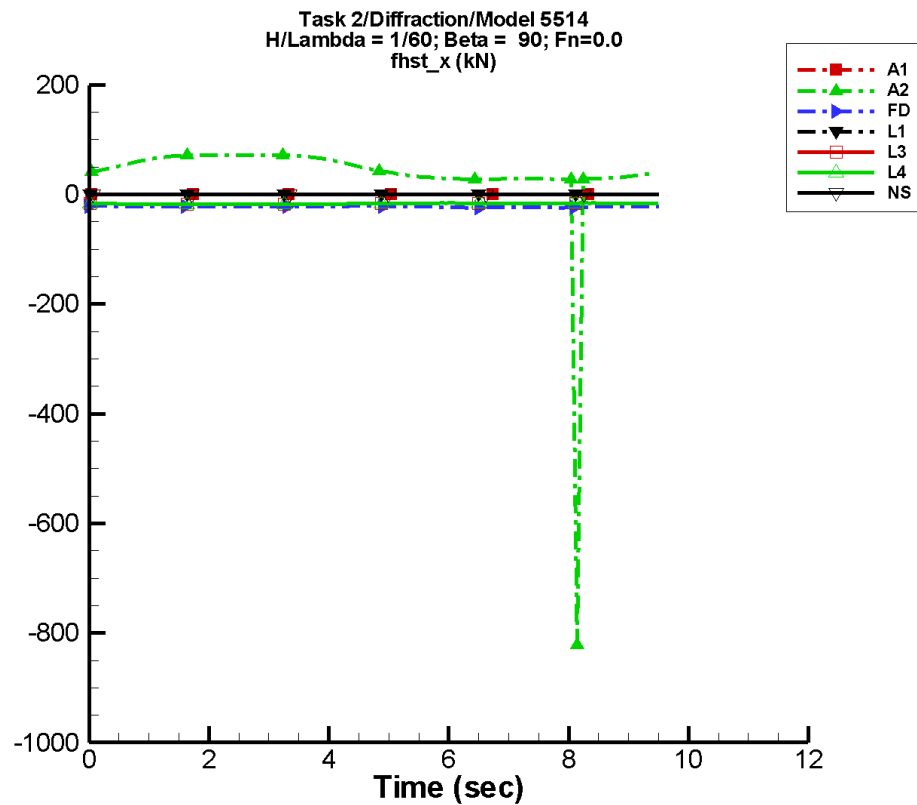
Table H-575. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	898.	377.	140	349.	41
FD	-56.4	1.14E+03	-125	341.	167
L1	—	—	—	—	—
L3	-53.4	1.15E+03	-124	386.	158
L4	-53.4	1.15E+03	-124	386.	158
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-576. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-431.	3.91E+03	-70.5	1.91E+03
FD	-1.93E+03	1.45E+03	-1.80E+03	1.35E+03
L1	—	—	—	—
L3	-1.86E+03	1.40E+03	-1.82E+03	1.35E+03
L4	-1.86E+03	1.40E+03	-1.82E+03	1.35E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-289. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-577. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

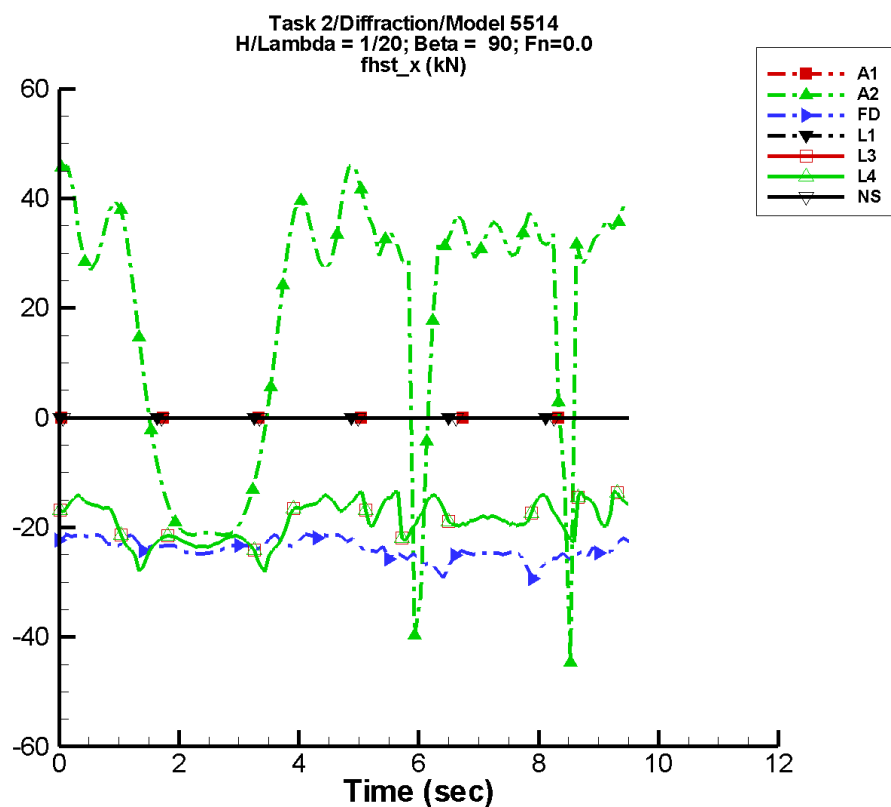
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	38.3	39.9	-23	15.9	-2
FD	-22.2	1.08	-5	0.714	79
L1	—	—	—	—	—
L3	-16.6	0.761	179	0.108	64
L4	-16.6	0.761	179	0.108	64
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-578. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-822.	71.8	-85.3	71.8
FD	-24.2	-21.1	-23.8	-21.2
L1	—	—	—	—
L3	-17.6	-15.6	-17.5	-15.7
L4	-17.6	-15.6	-17.5	-15.7
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-290. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

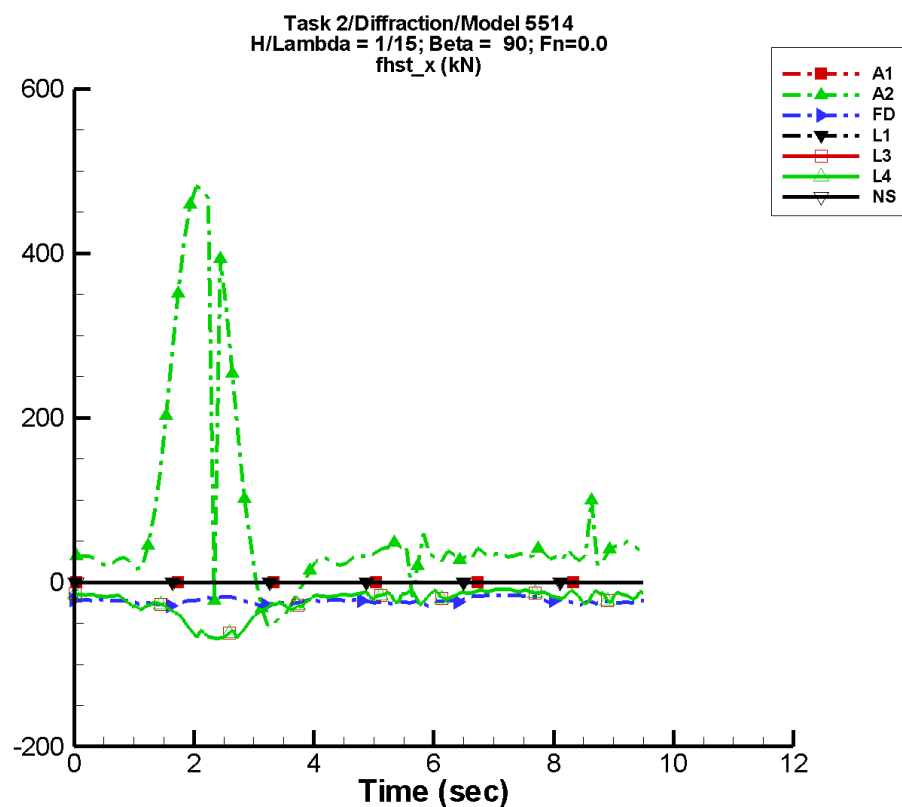
Table H-579. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	36.6	42.0	104	60.5	71
FD	-23.9	1.42	-3	1.43	79
L1	—	—	—	—	—
L3	-18.9	2.62	175	2.83	84
L4	-18.9	2.62	175	2.83	84
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-580. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-44.7	2.85E+03	-21.3	412.
FD	-29.4	-21.2	-26.6	-21.4
L1	—	—	—	—
L3	-28.2	-13.4	-25.3	-15.3
L4	-28.2	-13.4	-25.3	-15.3
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-291. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

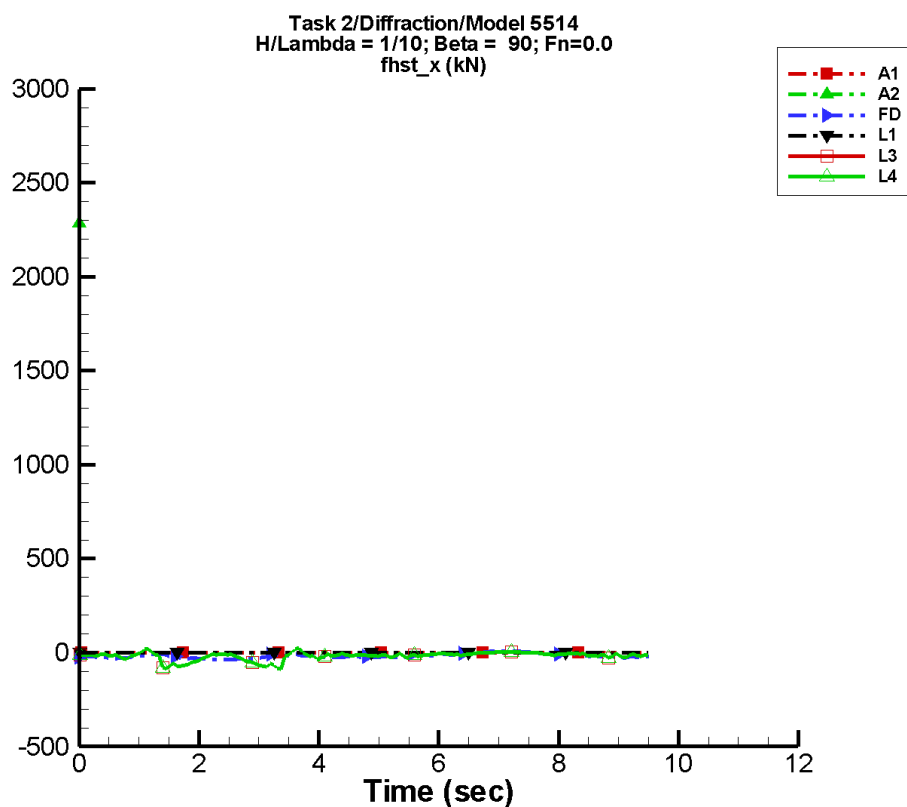
Table H-581. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	66.2	71.3	8	84.3	-80
FD	-22.8	1.59	168	1.63	-100
L1	—	—	—	—	—
L3	-23.4	17.1	173	10.5	88
L4	-23.4	17.1	173	10.5	88
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-582. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-54.0	482.	-29.7	386.
FD	-29.8	-15.6	-26.5	-16.2
L1	—	—	—	—
L3	-68.6	-8.28	-66.3	-9.40
L4	-68.6	-8.28	-66.3	-9.40
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-292. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

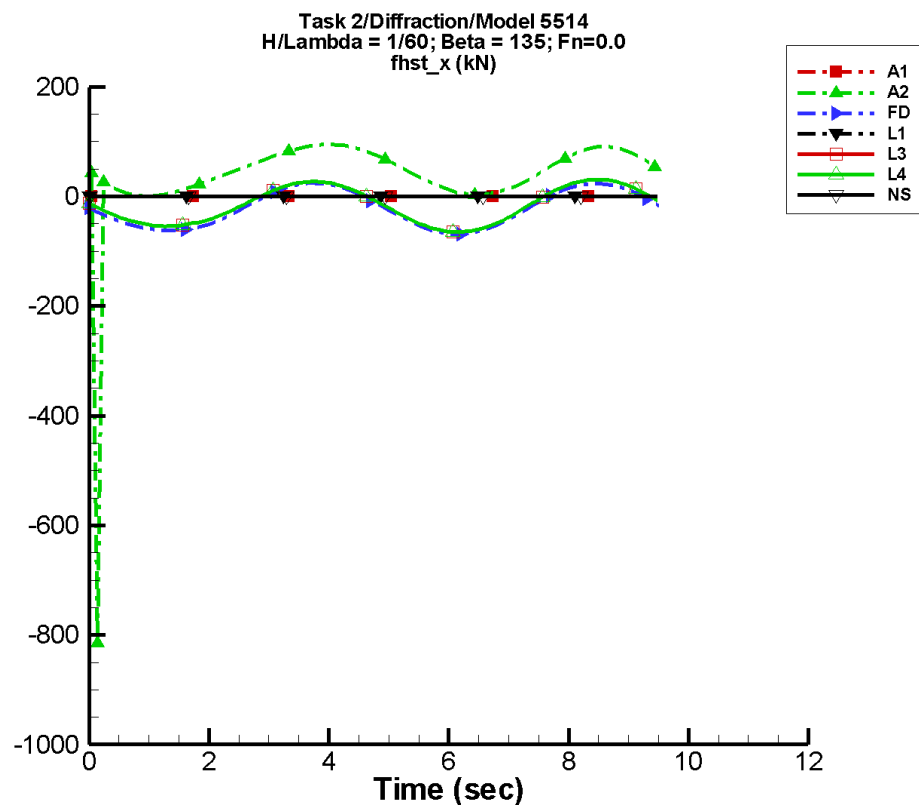
Table H-583. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.53E+03	3.40E+04	-78	1.76E+04	-7
FD	-17.3	11.5	176	4.38	-101
L1	—	—	—	—	—
L3	-18.0	16.7	173	4.49	94
L4	-18.0	16.7	173	4.49	94
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-584. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	2.29E+03	2.31E+03	2.29E+03	2.31E+03
FD	-37.1	6.96	-34.6	5.37
L1	—	—	—	—
L3	-92.0	25.1	-69.1	2.03
L4	-92.0	25.1	-69.1	2.03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-293. Time history of  $F_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-585. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

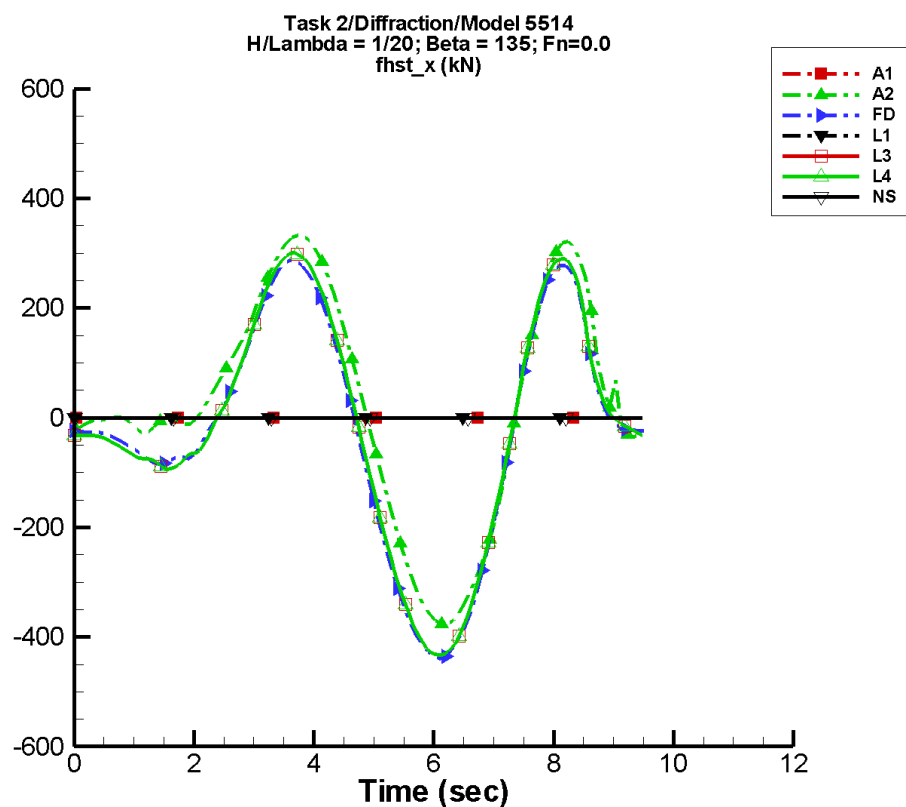
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	41.6	23.5	-82	39.9	172
FD	-22.3	1.39	-48	44.3	157
L1	—	—	—	—	—
L3	-16.7	2.23	40	43.9	161
L4	-16.7	2.23	40	43.9	161
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-586. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-815.	94.9	-82.3	93.6
FD	-68.7	24.4	-66.7	22.2
L1	—	—	—	—
L3	-64.9	31.1	-64.2	30.3
L4	-64.9	31.1	-64.2	30.3
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-294. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

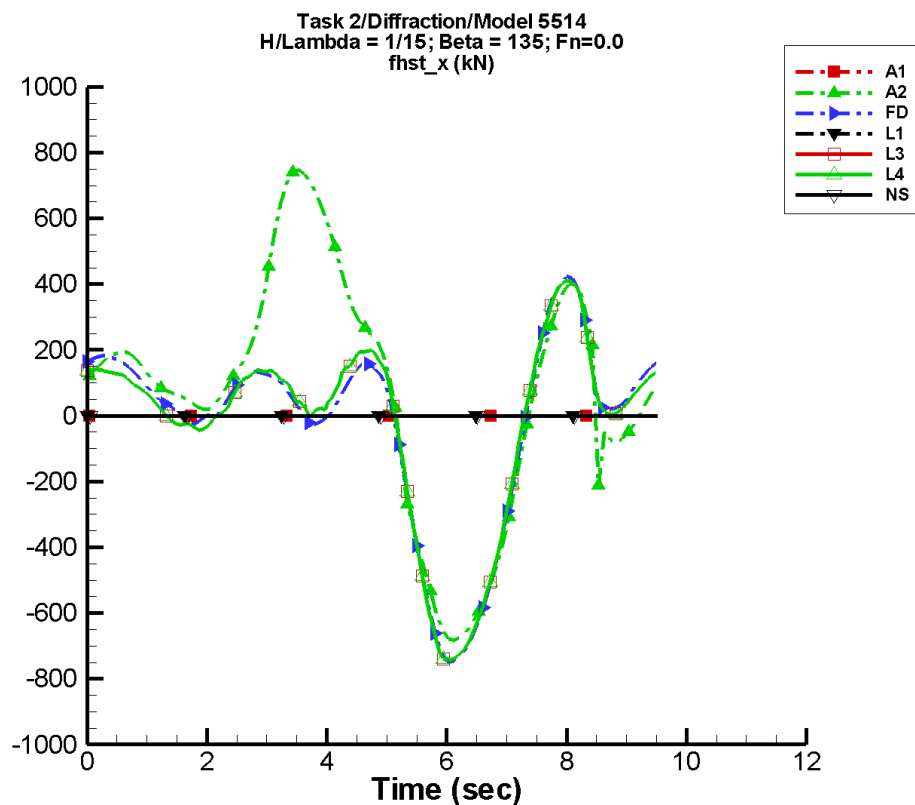
Table H-587. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	28.5	125.	13	224.	167
FD	-20.0	117.	25	238.	164
L1	—	—	—	—	—
L3	-14.4	109.	23	244.	168
L4	-14.4	109.	23	244.	168
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-588. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-377.	333.	-360.	316.
FD	-440.	287.	-422.	269.
L1	—	—	—	—
L3	-433.	301.	-428.	295.
L4	-433.	301.	-428.	295.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-295. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

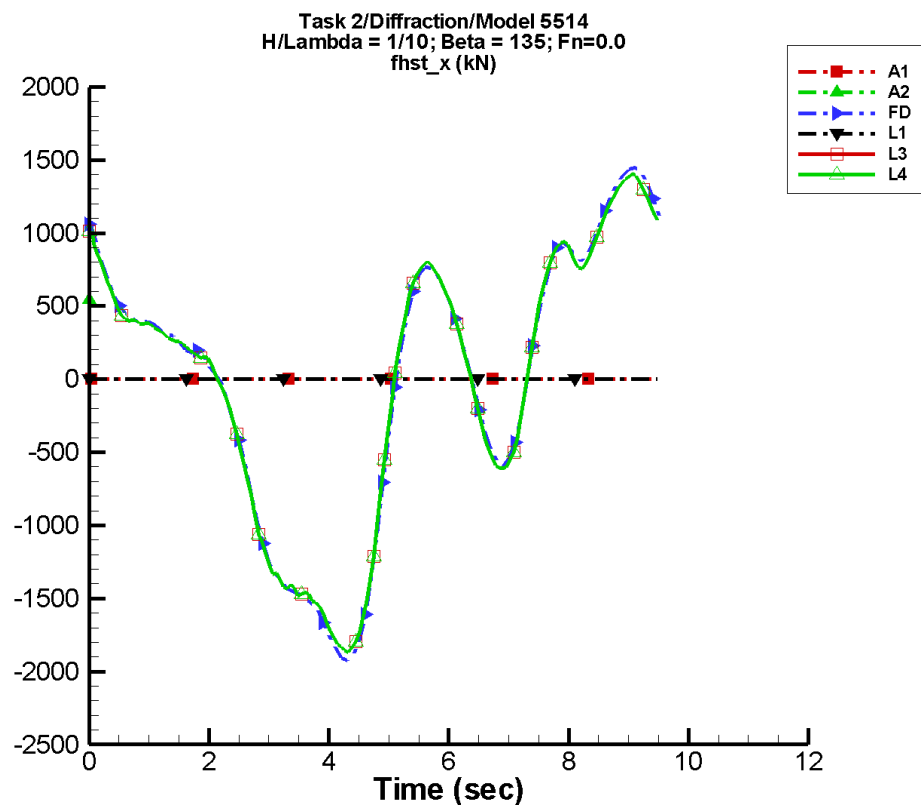
Table H-589. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	82.9	297.	1	331.	156
FD	-26.0	238.	50	210.	151
L1	—	—	—	—	—
L3	-25.7	211.	48	225.	155
L4	-25.7	211.	48	225.	155
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-590. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-682.	748.	-647.	693.
FD	-749.	423.	-704.	345.
L1	—	—	—	—
L3	-741.	411.	-729.	393.
L4	-741.	411.	-729.	393.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-296. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

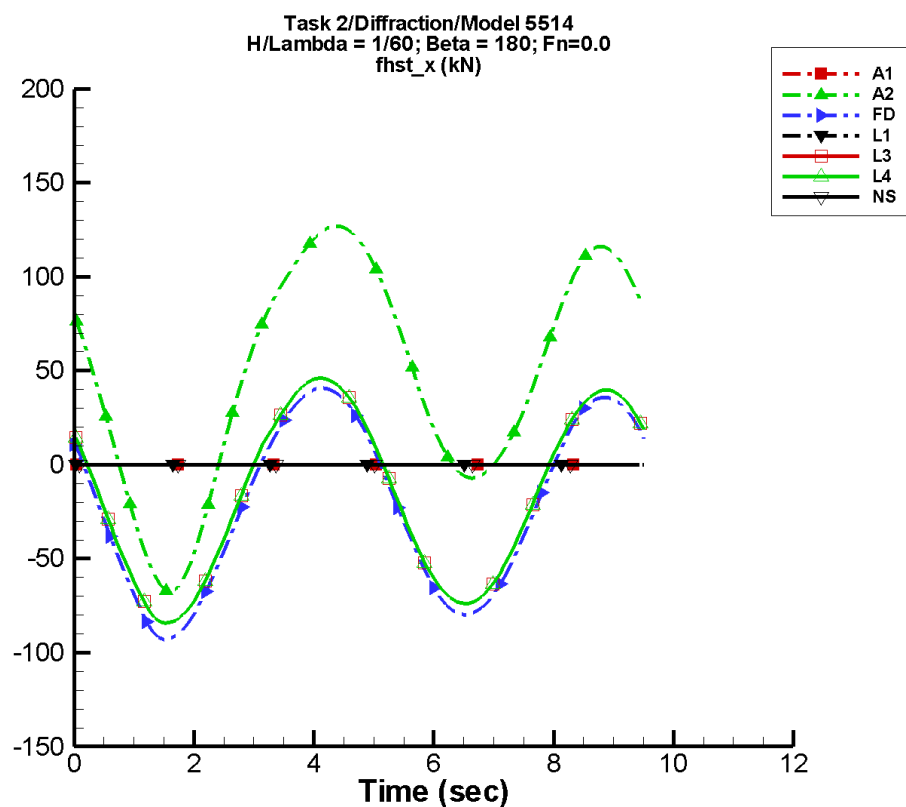
Table H-591. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.50E+03	1.40E+04	-138	8.58E+03	64
FD	-43.8	1.09E+03	115	333.	-5
L1	—	—	—	—	—
L3	-53.5	1.07E+03	118	342.	-2
L4	-53.5	1.07E+03	118	342.	-2
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-592. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	419.	544.	419.	544.
FD	-1.93E+03	1.45E+03	-1.82E+03	1.35E+03
L1	—	—	—	—
L3	-1.87E+03	1.40E+03	-1.86E+03	1.35E+03
L4	-1.87E+03	1.40E+03	-1.86E+03	1.35E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-297. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-593. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

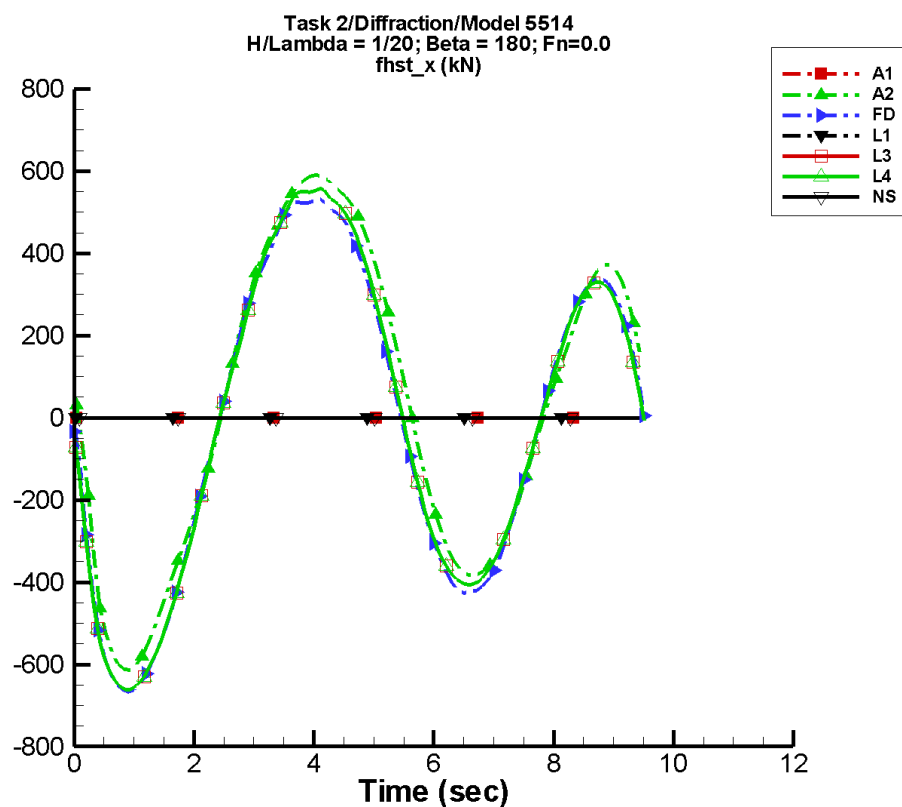
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	46.9	27.7	-130	77.9	129
FD	-22.4	7.11	-104	61.4	131
L1	—	—	—	—	—
L3	-16.5	6.86	-90	60.9	136
L4	-16.5	6.86	-90	60.9	136
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-594. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-67.6	127.	-62.4	124.
FD	-93.0	40.9	-88.9	40.2
L1	—	—	—	—
L3	-84.3	46.0	-83.1	45.2
L4	-84.3	46.0	-83.1	45.2
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-298. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

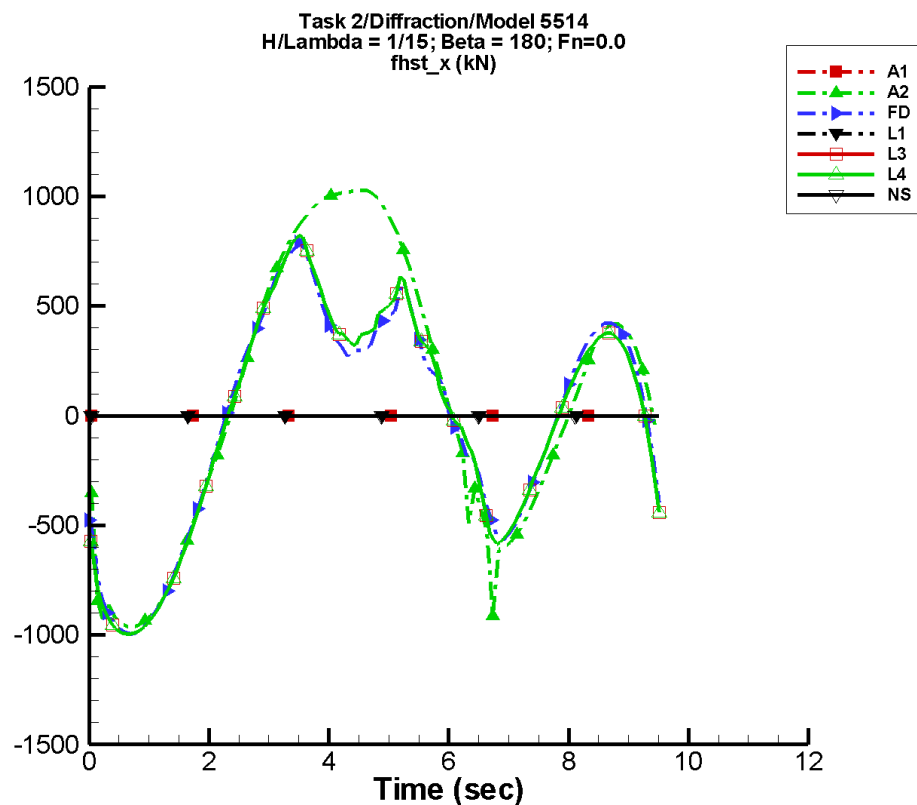
Table H-595. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	15.9	256.	-83	444.	147
FD	-34.7	231.	-84	443.	153
L1	—	—	—	—	—
L3	-21.5	256.	-82	455.	156
L4	-21.5	256.	-82	455.	156
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-596. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-689.	590.	-586.	575.
FD	-667.	532.	-645.	533.
L1	—	—	—	—
L3	-661.	557.	-652.	552.
L4	-661.	557.	-652.	552.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-299. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

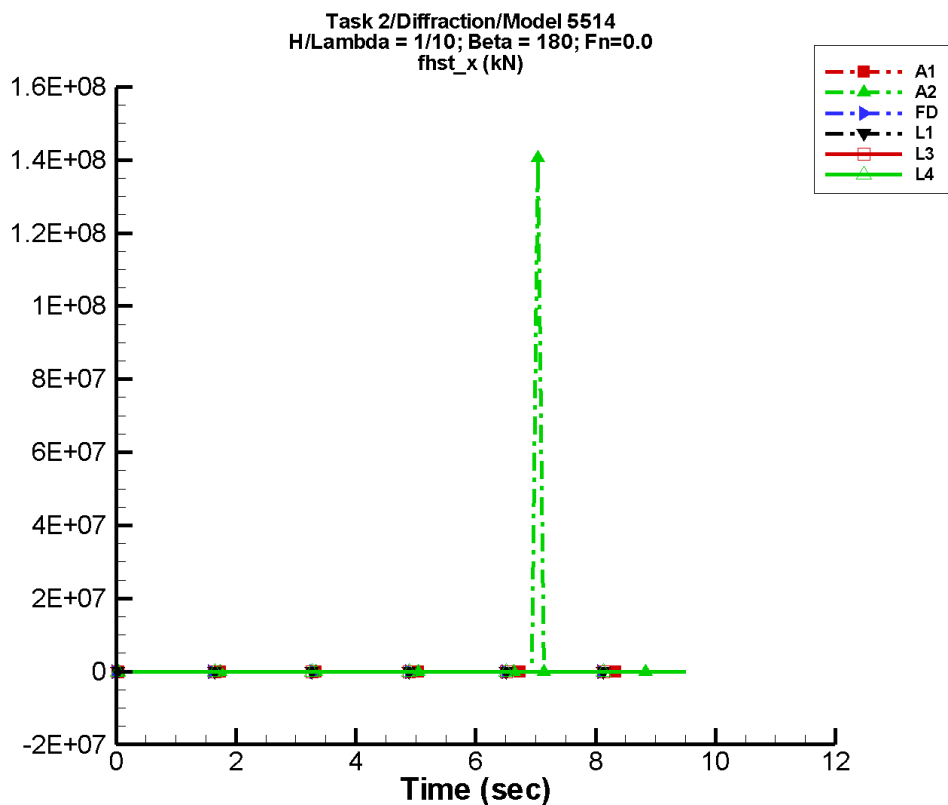
Table H-597. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	49.4	643.	-86	584.	146
FD	-41.7	434.	-94	464.	168
L1	—	—	—	—	—
L3	-31.6	491.	-91	474.	168
L4	-31.6	491.	-91	474.	168
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-598. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-984.	1.03E+03	-958.	1.02E+03
FD	-995.	789.	-970.	691.
L1	—	—	—	—
L3	-997.	823.	-991.	765.
L4	-997.	823.	-991.	765.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-300. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

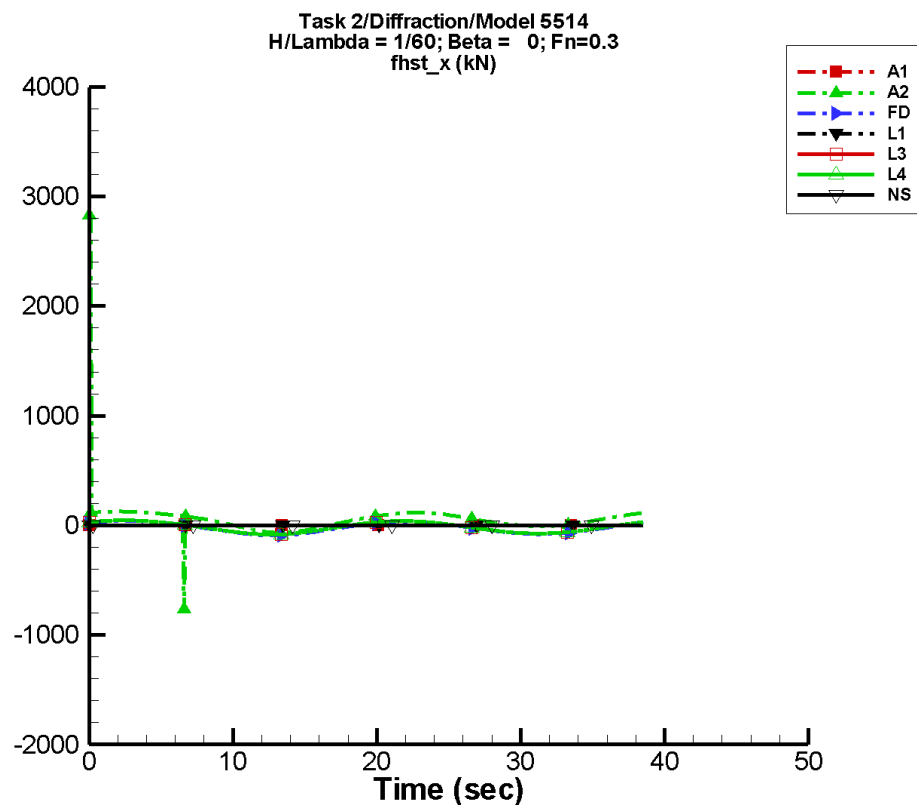
Table H-599. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.55E+06	2.96E+06	176	2.71E+06	-89
FD	-30.6	923.	-178	1.17E+03	-101
L1	—	—	—	—	—
L3	-7.62	903.	-169	1.09E+03	-97
L4	-7.62	903.	-169	1.09E+03	-97
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-600. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.30E+03	1.41E+08	-1.60E+06	1.88E+07
FD	-1.41E+03	2.01E+03	-1.30E+03	1.91E+03
L1	—	—	—	—
L3	-1.40E+03	1.94E+03	-1.31E+03	1.90E+03
L4	-1.40E+03	1.94E+03	-1.31E+03	1.90E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-301. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-601. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

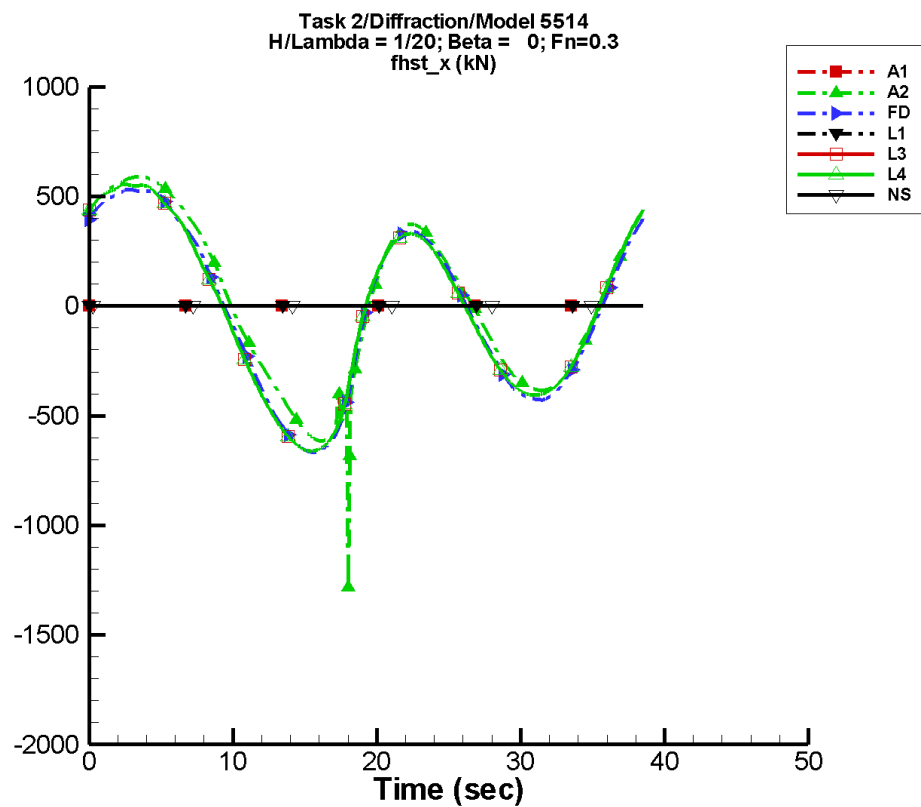
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	45.4	26.2	134	72.0	45
FD	-22.3	6.95	104	61.5	53
L1	—	—	—	—	—
L3	-16.5	6.72	92	60.4	47
L4	-16.5	6.72	92	60.4	47
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-602. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-767.	127.	-67.3	127.
FD	-93.1	40.9	-92.8	40.8
L1	—	—	—	—
L3	-84.3	46.0	-84.2	46.0
L4	-84.3	46.0	-84.2	46.0
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-302. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

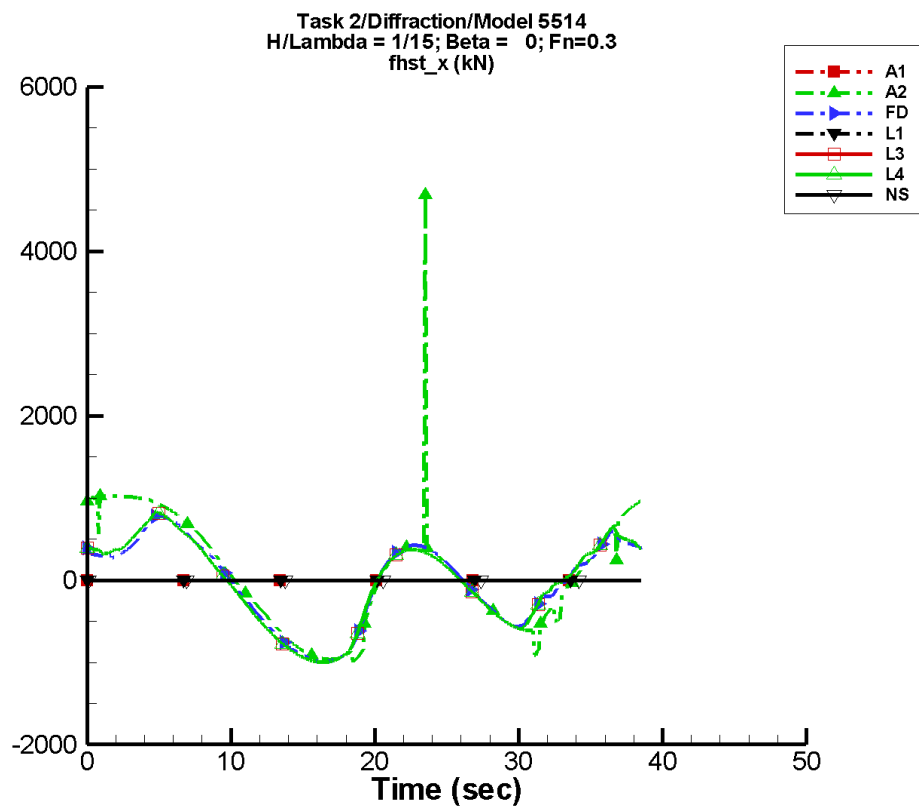
Table H-603. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	17.6	234.	78	428.	27
FD	-28.7	217.	84	460.	34
L1	—	—	—	—	—
L3	-18.5	240.	84	455.	30
L4	-18.5	240.	84	455.	30
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-604. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.28E+03	590.	-616.	589.
FD	-667.	533.	-665.	530.
L1	—	—	—	—
L3	-662.	557.	-661.	555.
L4	-662.	557.	-661.	555.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-303. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

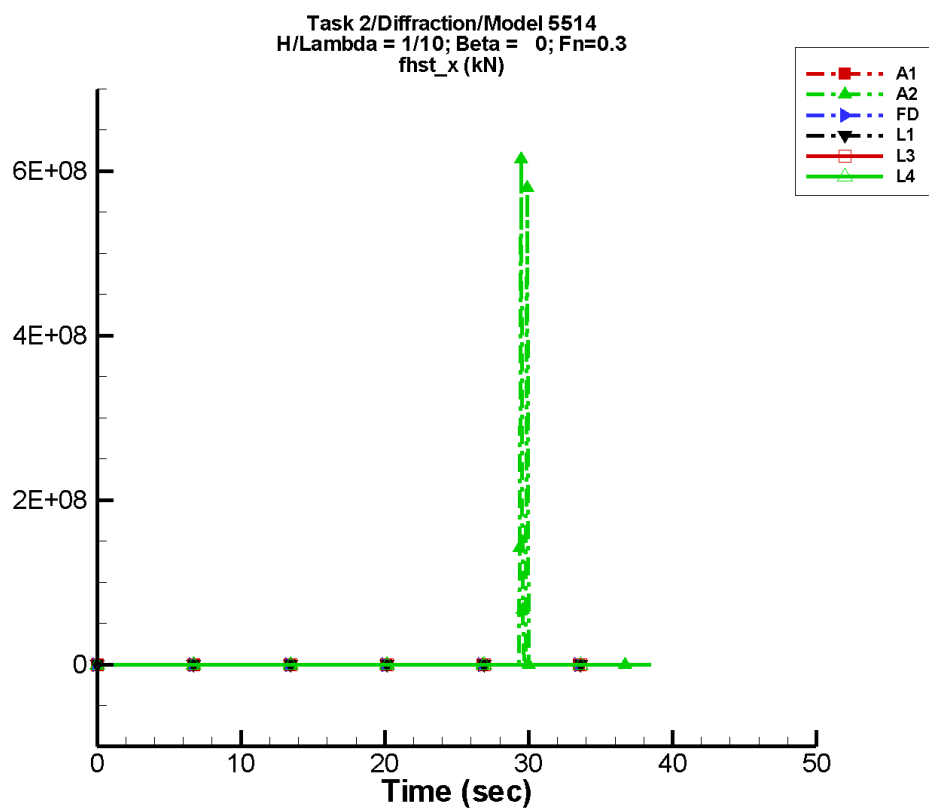
Table H-605. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	63.6	558.	83	588.	29
FD	-38.2	388.	94	481.	22
L1	—	—	—	—	—
L3	-22.7	456.	93	462.	21
L4	-22.7	456.	93	462.	21
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-606. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-996.	4.68E+03	-961.	1.03E+03
FD	-995.	803.	-994.	777.
L1	—	—	—	—
L3	-997.	831.	-997.	820.
L4	-997.	831.	-997.	820.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-304. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

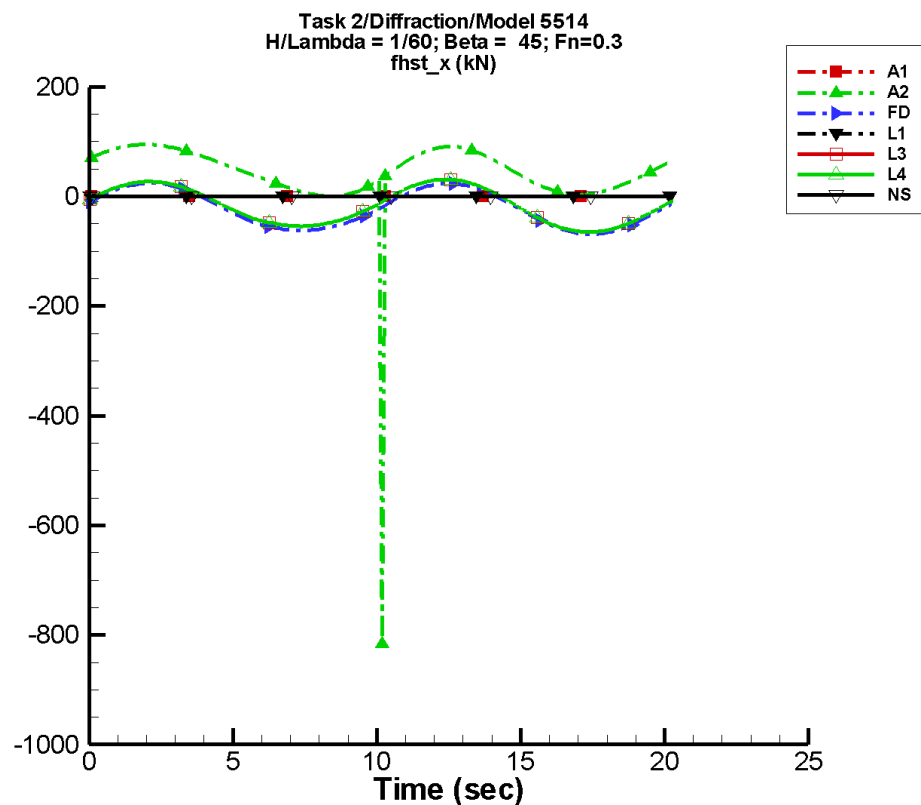
Table H-607. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.82E+06	7.40E+06	174	6.51E+06	-92
FD	-20.7	914.	180	1.12E+03	-75
L1	—	—	—	—	—
L3	-20.6	914.	172	1.07E+03	-83
L4	-20.6	914.	172	1.07E+03	-83
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-608. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.30E+03	6.15E+08	-7.33E+06	1.57E+08
FD	-1.42E+03	2.01E+03	-1.37E+03	1.98E+03
L1	—	—	—	—
L3	-1.41E+03	1.95E+03	-1.38E+03	1.94E+03
L4	-1.41E+03	1.95E+03	-1.38E+03	1.94E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-305. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-609. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

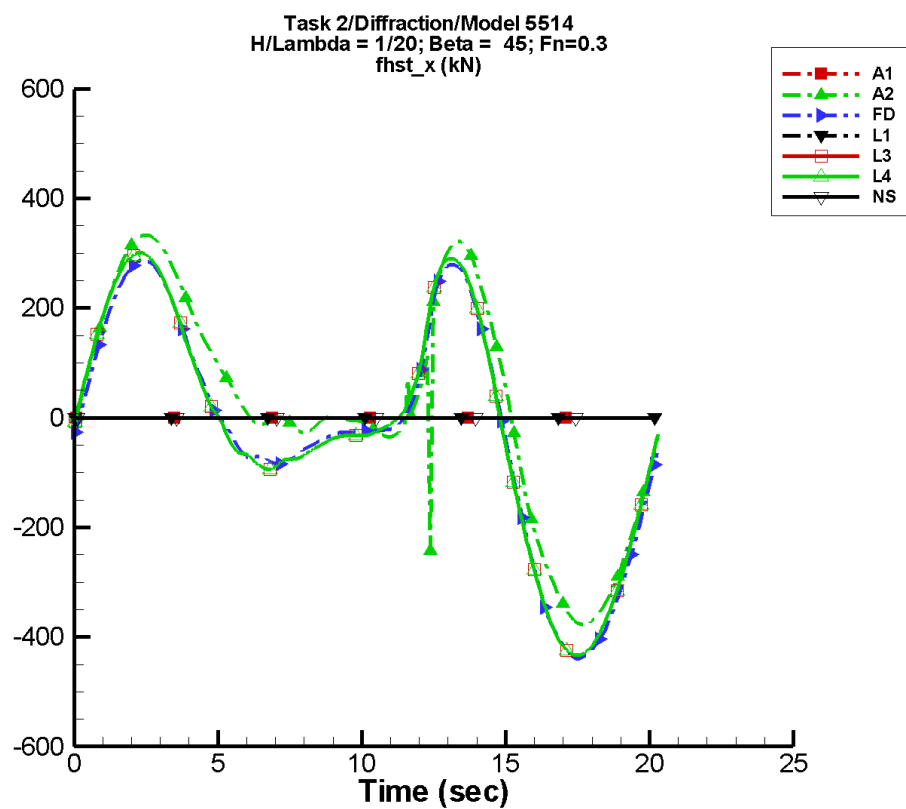
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	42.8	18.0	70	41.5	-19
FD	-22.2	1.36	36	45.0	-12
L1	—	—	—	—	—
L3	-16.7	2.14	-44	44.0	6
L4	-16.7	2.14	-44	44.0	6
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-610. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-816.	94.9	-79.5	94.6
FD	-68.8	24.4	-68.3	23.9
L1	—	—	—	—
L3	-64.9	31.1	-64.8	30.9
L4	-64.9	31.1	-64.8	30.9
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-306. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

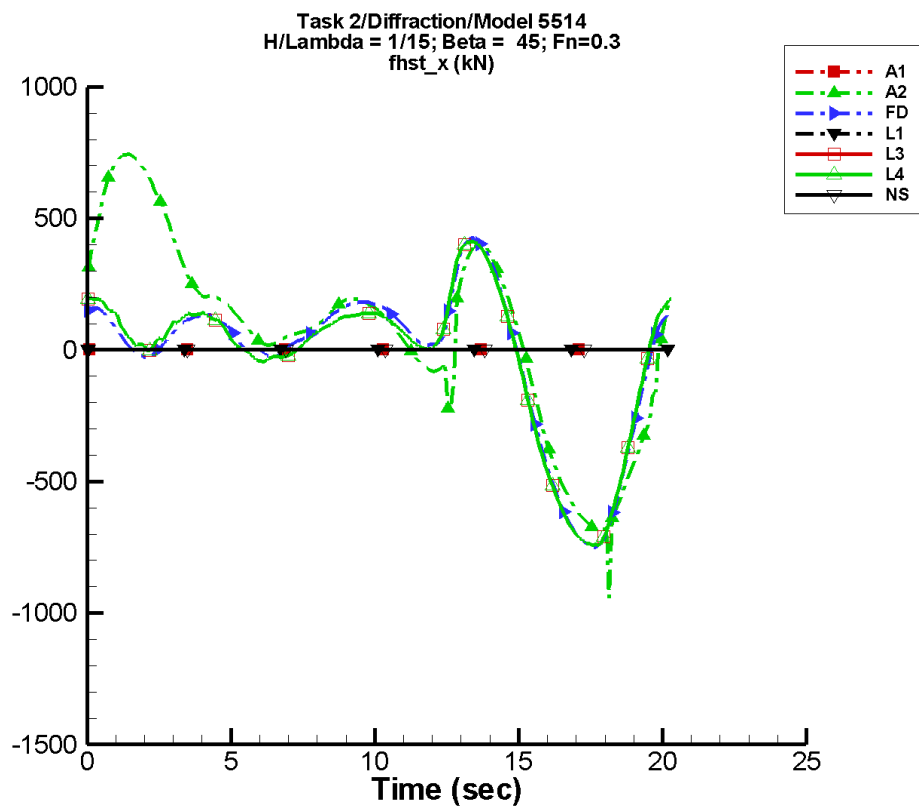
Table H-611. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	20.8	108.	-26	234.	-22
FD	-20.0	113.	-36	252.	-21
L1	—	—	—	—	—
L3	-13.7	108.	-29	245.	0
L4	-13.7	108.	-29	245.	0
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-612. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-378.	333.	-374.	329.
FD	-440.	287.	-435.	283.
L1	—	—	—	—
L3	-433.	301.	-432.	299.
L4	-433.	301.	-432.	299.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-307. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

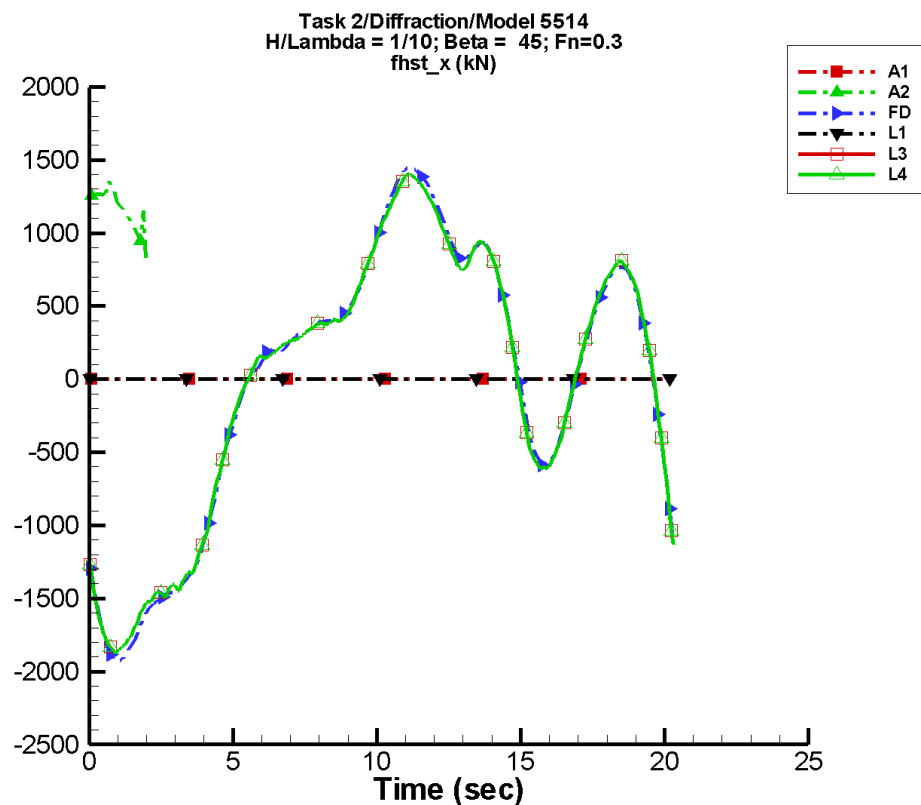
Table H-613. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	70.6	252.	-9	342.	2
FD	-24.3	216.	-65	225.	-4
L1	—	—	—	—	—
L3	-20.2	203.	-52	228.	15
L4	-20.2	203.	-52	228.	15
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-614. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-942.	1.52E+03	-701.	738.
FD	-750.	425.	-739.	412.
L1	—	—	—	—
L3	-741.	411.	-740.	408.
L4	-741.	411.	-740.	408.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-308. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

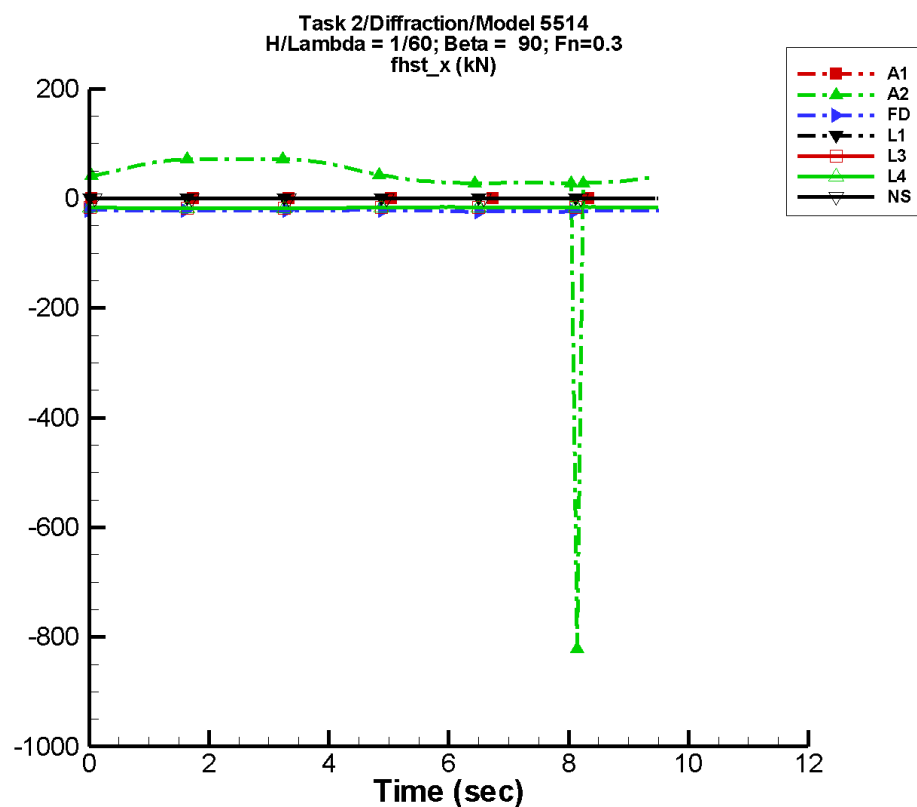
Table H-615. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.48E+03	3.05E+03	129	1.50E+03	10
FD	-52.9	1.19E+03	-131	387.	144
L1	—	—	—	—	—
L3	-65.2	1.09E+03	-123	341.	173
L4	-65.2	1.09E+03	-123	341.	173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-616. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-19.5	1.35E+03	-12.9	1.29E+03
FD	-1.93E+03	1.45E+03	-1.90E+03	1.42E+03
L1	—	—	—	—
L3	-1.88E+03	1.40E+03	-1.85E+03	1.39E+03
L4	-1.88E+03	1.40E+03	-1.85E+03	1.39E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-309. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-617. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

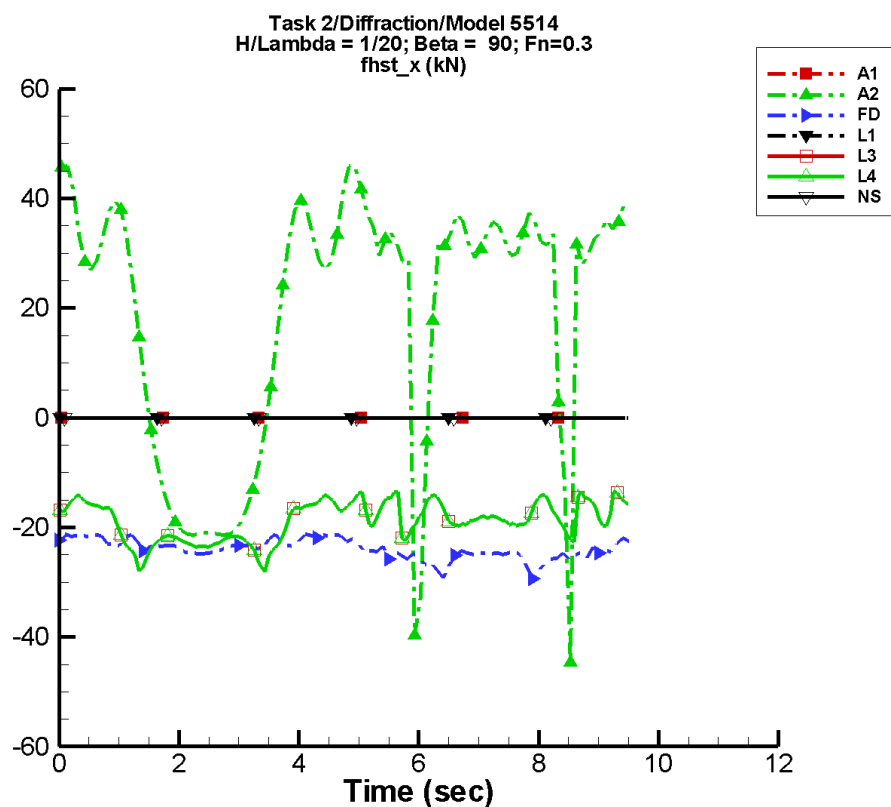
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	38.3	39.9	-23	15.9	-2
FD	-22.2	1.08	-5	0.714	79
L1	—	—	—	—	—
L3	-16.6	0.761	179	0.108	64
L4	-16.6	0.761	179	0.108	64
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-618. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-822.	71.8	-85.3	71.8
FD	-24.2	-21.1	-23.8	-21.2
L1	—	—	—	—
L3	-17.6	-15.6	-17.5	-15.7
L4	-17.6	-15.6	-17.5	-15.7
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-310. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

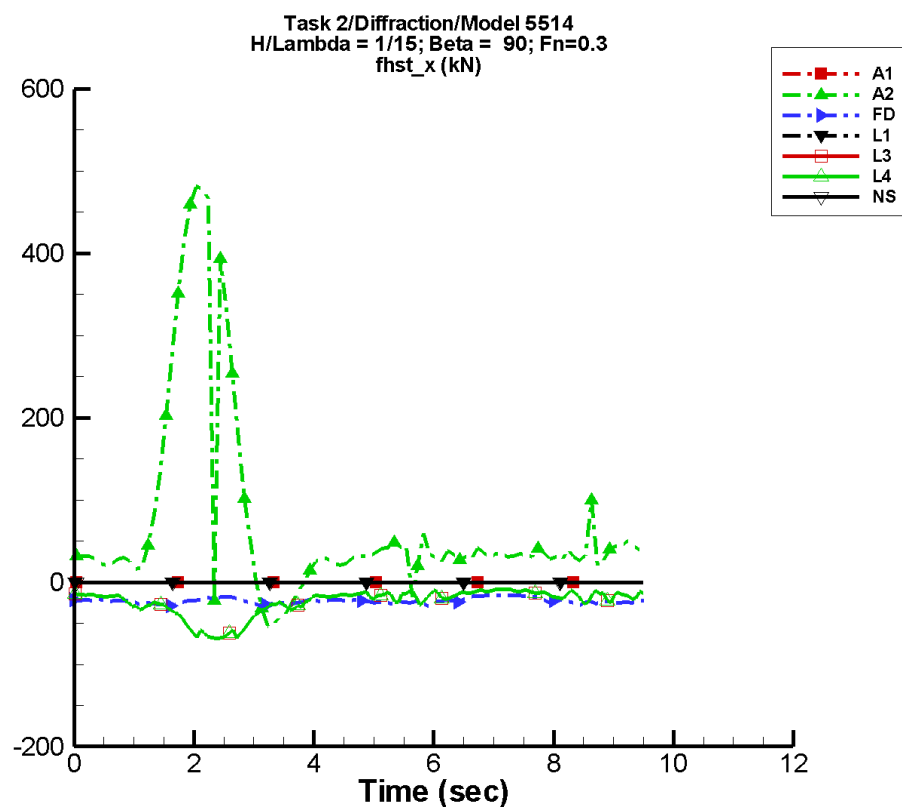
Table H-619. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	36.6	42.0	104	60.5	71
FD	-23.9	1.42	-3	1.43	79
L1	—	—	—	—	—
L3	-18.9	2.62	175	2.83	84
L4	-18.9	2.62	175	2.83	84
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-620. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-44.7	2.85E+03	-21.3	412.
FD	-29.4	-21.2	-26.6	-21.4
L1	—	—	—	—
L3	-28.2	-13.4	-25.3	-15.3
L4	-28.2	-13.4	-25.3	-15.3
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-311. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

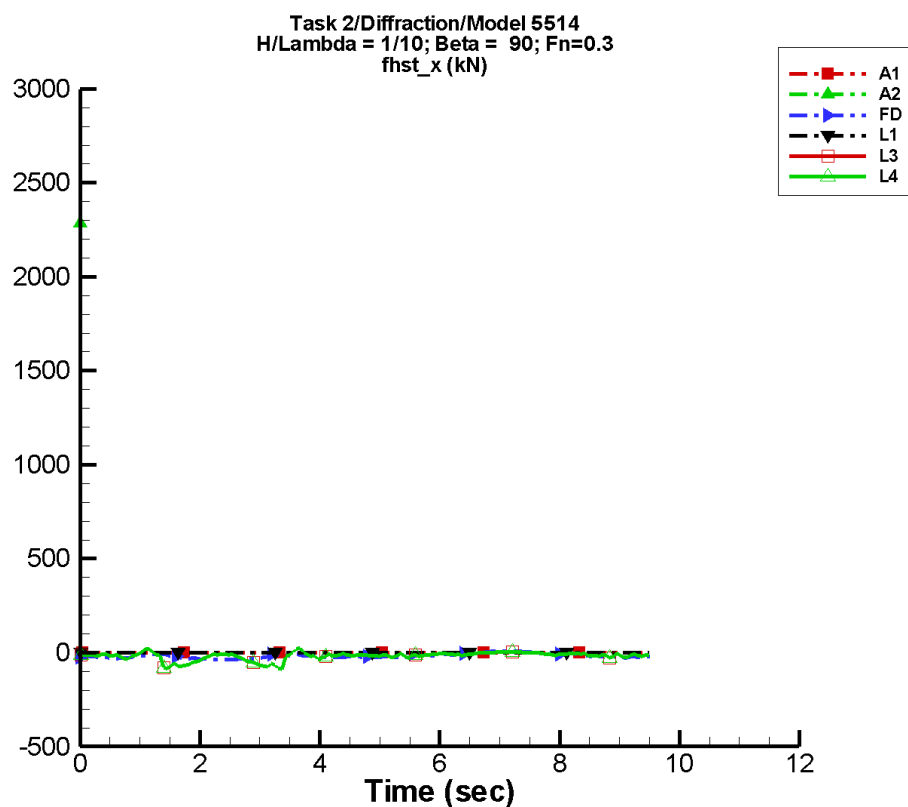
Table H-621. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	66.2	71.3	8	84.3	-80
FD	-22.8	1.59	168	1.63	-100
L1	—	—	—	—	—
L3	-23.4	17.1	173	10.5	88
L4	-23.4	17.1	173	10.5	88
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-622. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-54.0	482.	-29.7	386.
FD	-29.8	-15.6	-26.4	-16.2
L1	—	—	—	—
L3	-68.6	-8.28	-66.3	-9.40
L4	-68.6	-8.28	-66.3	-9.40
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-312. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

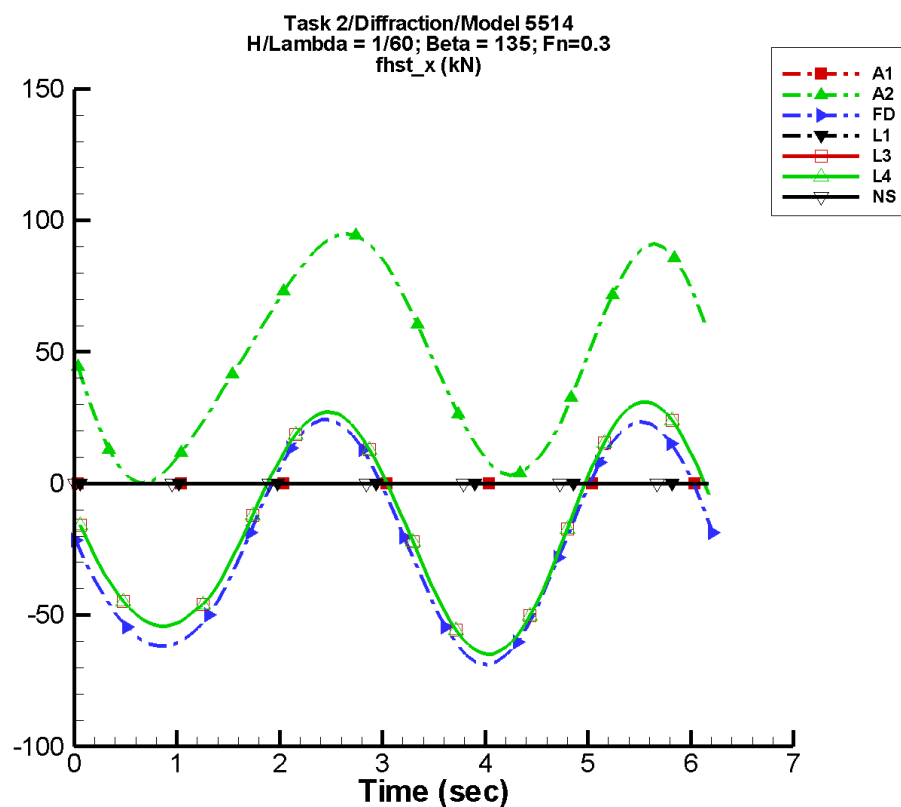
Table H-623. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.53E+03	3.40E+04	-78	1.76E+04	-7
FD	-17.3	11.5	176	4.38	-101
L1	—	—	—	—	—
L3	-18.0	16.7	173	4.49	94
L4	-18.0	16.7	173	4.49	94
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-624. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	2.29E+03	2.31E+03	2.29E+03	2.31E+03
FD	-37.1	6.97	-34.6	5.38
L1	—	—	—	—
L3	-92.0	25.1	-69.1	2.04
L4	-92.0	25.1	-69.1	2.04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-313. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-625. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

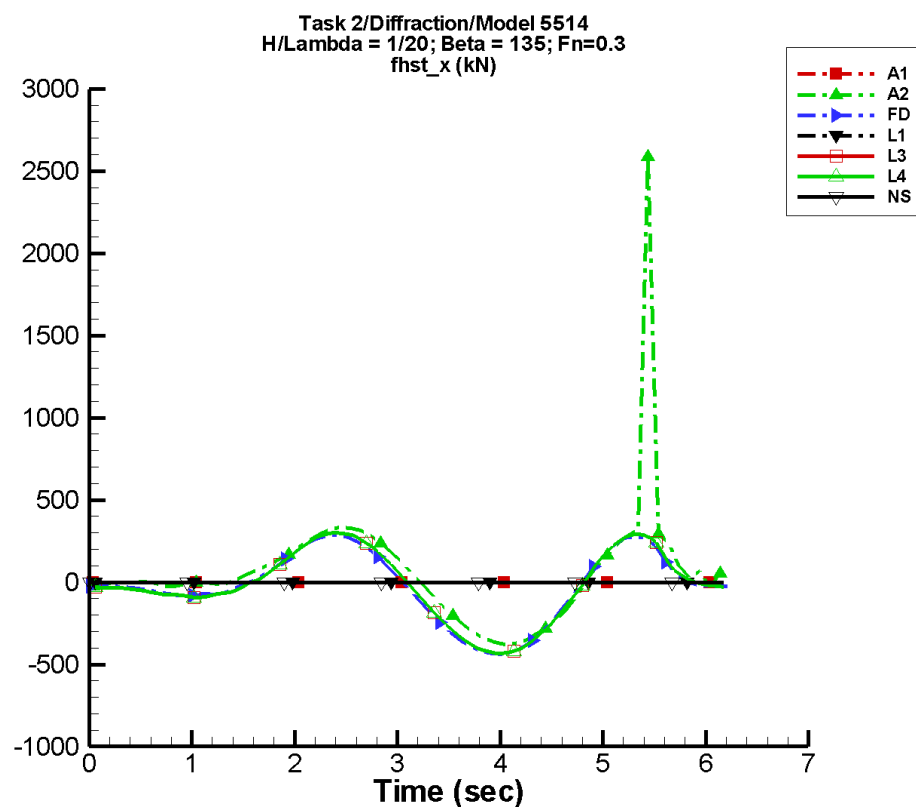
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	47.1	12.0	-77	42.6	146
FD	-22.4	1.77	-61	44.5	125
L1	—	—	—	—	—
L3	-16.7	2.35	27	44.3	147
L4	-16.7	2.35	27	44.3	147
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-626. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	0.101	94.9	5.72	91.1
FD	-68.8	24.3	-64.0	19.4
L1	—	—	—	—
L3	-64.9	31.0	-63.2	29.2
L4	-64.9	31.0	-63.2	29.2
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-314. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

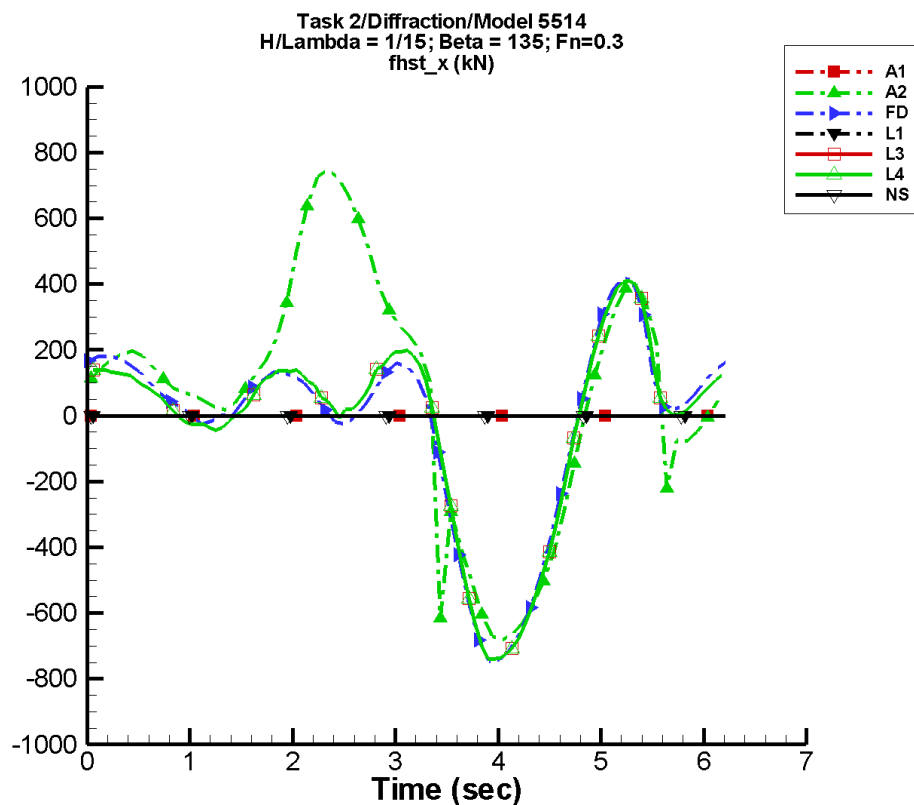
Table H-627. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	66.4	112.	43	293.	162
FD	-24.0	125.	8	246.	131
L1	—	—	—	—	—
L3	-13.6	117.	17	242.	157
L4	-13.6	117.	17	242.	157
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-628. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-377.	2.58E+03	-332.	536.
FD	-440.	287.	-400.	245.
L1	—	—	—	—
L3	-433.	301.	-420.	286.
L4	-433.	301.	-420.	286.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-315. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

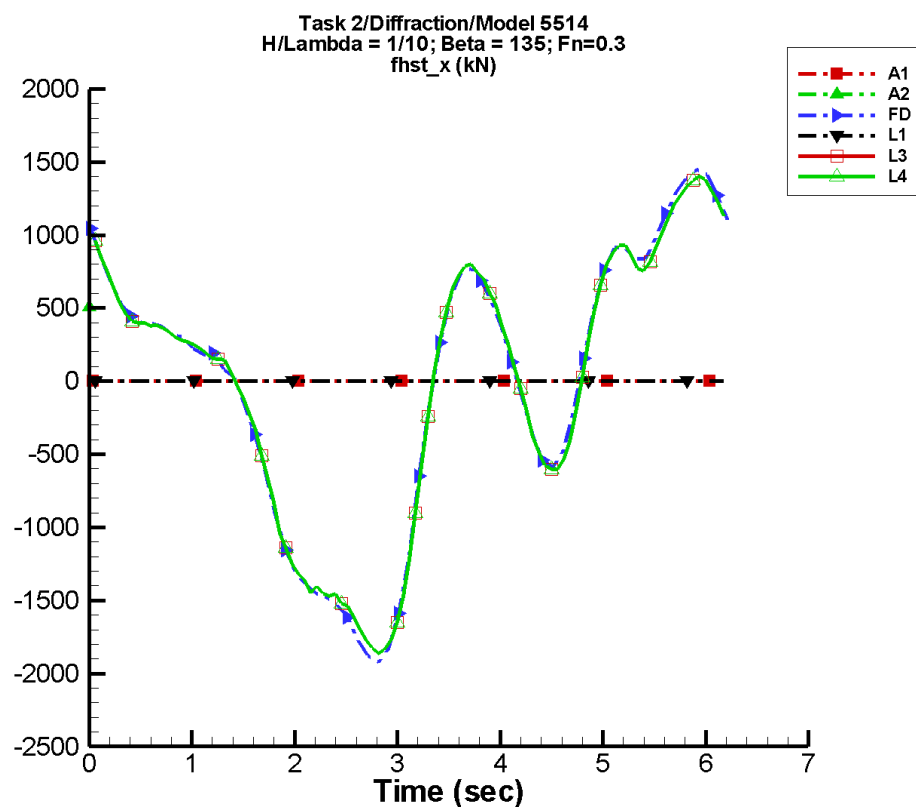
Table H-629. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	74.4	306.	0	335.	151
FD	-28.5	244.	27	243.	111
L1	—	—	—	—	—
L3	-18.5	212.	36	239.	142
L4	-18.5	212.	36	239.	142
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-630. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-682.	748.	-612.	627.
FD	-747.	420.	-647.	262.
L1	—	—	—	—
L3	-740.	410.	-710.	355.
L4	-740.	410.	-710.	355.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-316. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

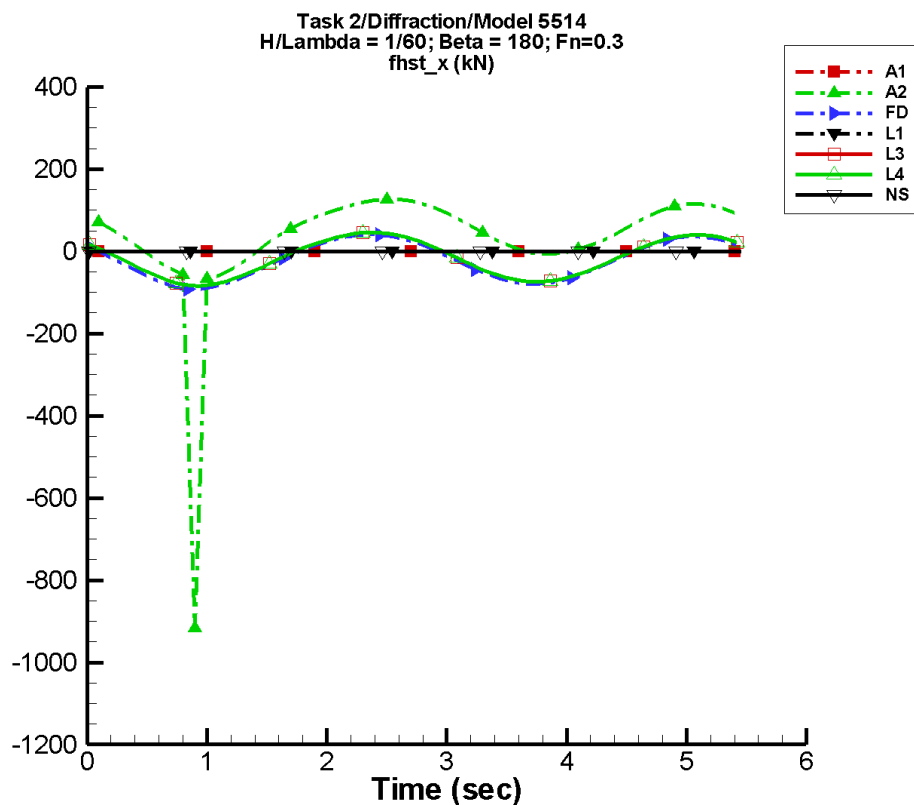
Table H-631. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-113.	450.	86	677.	107
FD	-58.1	1.04E+03	99	427.	-28
L1	—	—	—	—	—
L3	-51.0	1.05E+03	113	324.	1
L4	-51.0	1.05E+03	113	324.	1
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-632. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	348.	509.	348.	509.
FD	-1.93E+03	1.45E+03	-1.72E+03	1.23E+03
L1	—	—	—	—
L3	-1.86E+03	1.40E+03	-1.76E+03	1.31E+03
L4	-1.86E+03	1.40E+03	-1.76E+03	1.31E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-317. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-633. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

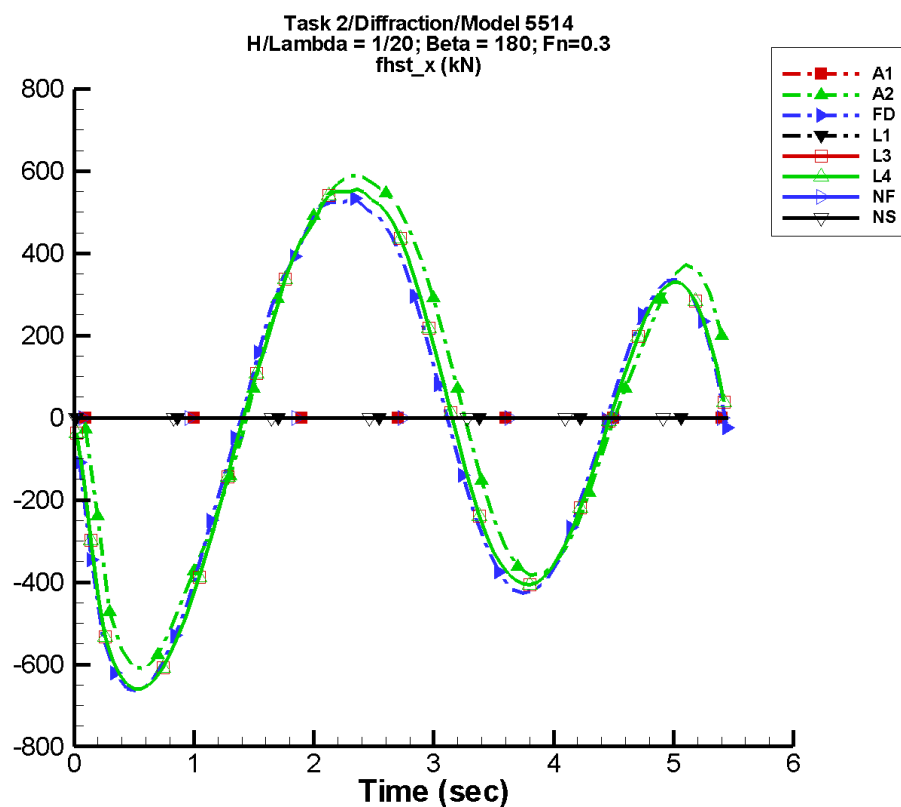
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	36.8	47.5	-135	102.	148
FD	-22.1	6.87	-8	61.6	-33
L1	—	—	—	—	—
L3	-16.6	6.40	-68	60.3	-174
L4	-16.6	6.40	-68	60.3	-174
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-634. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-917.	127.	-160.	117.
FD	-93.0	40.9	-81.4	33.6
L1	—	—	—	—
L3	-84.2	46.0	-80.3	43.2
L4	-84.2	46.0	-80.3	43.2
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-318. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

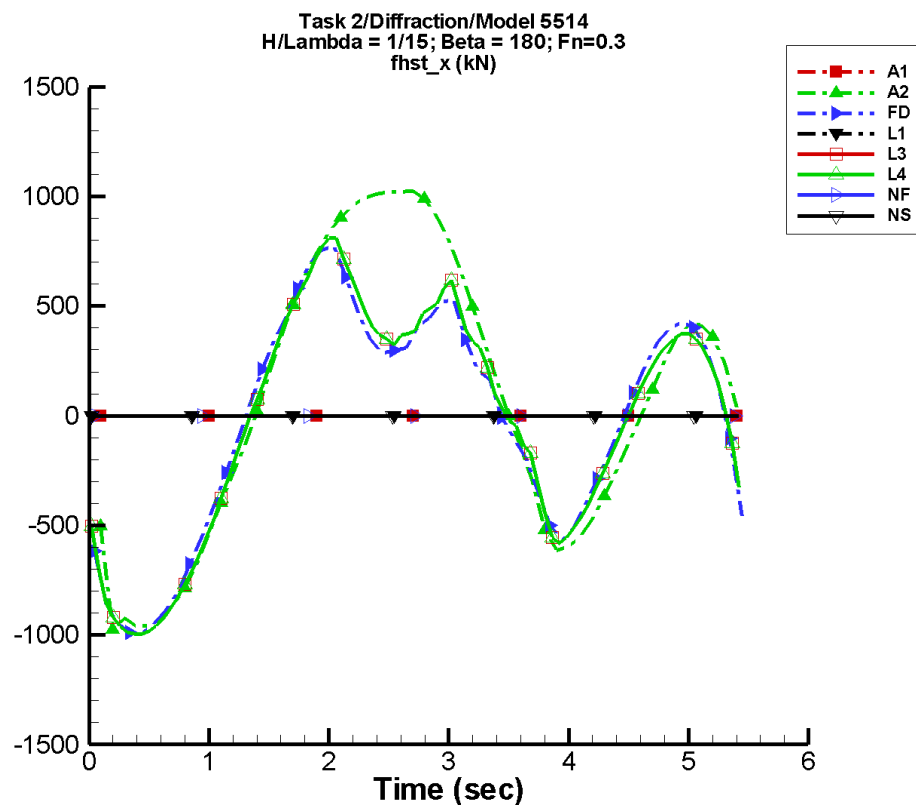
Table H-635. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	12.2	255.	-76	452.	164
FD	-24.8	225.	14	458.	-15
L1	—	—	—	—	—
L3	-27.3	255.	-58	441.	-156
L4	-27.3	255.	-58	441.	-156
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-636. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-615.	588.	-548.	554.
FD	-666.	533.	-580.	501.
L1	—	—	—	—
L3	-661.	557.	-641.	543.
L4	-661.	557.	-641.	543.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-319. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

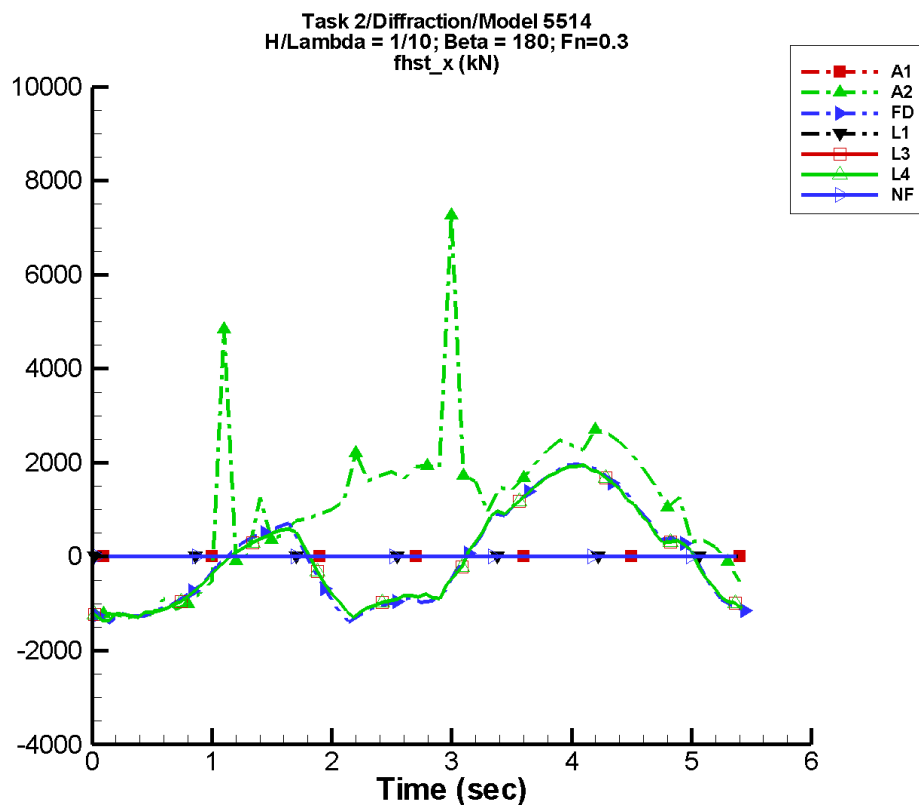
Table H-637. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	47.3	645.	-80	589.	163
FD	-24.1	417.	4	468.	-5
L1	—	—	—	—	—
L3	-48.6	499.	-65	422.	-146
L4	-48.6	499.	-65	422.	-146
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-638. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-975.	1.03E+03	-879.	998.
FD	-995.	787.	-879.	578.
L1	—	—	—	—
L3	-997.	817.	-973.	706.
L4	-997.	817.	-973.	706.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-320. Time history of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

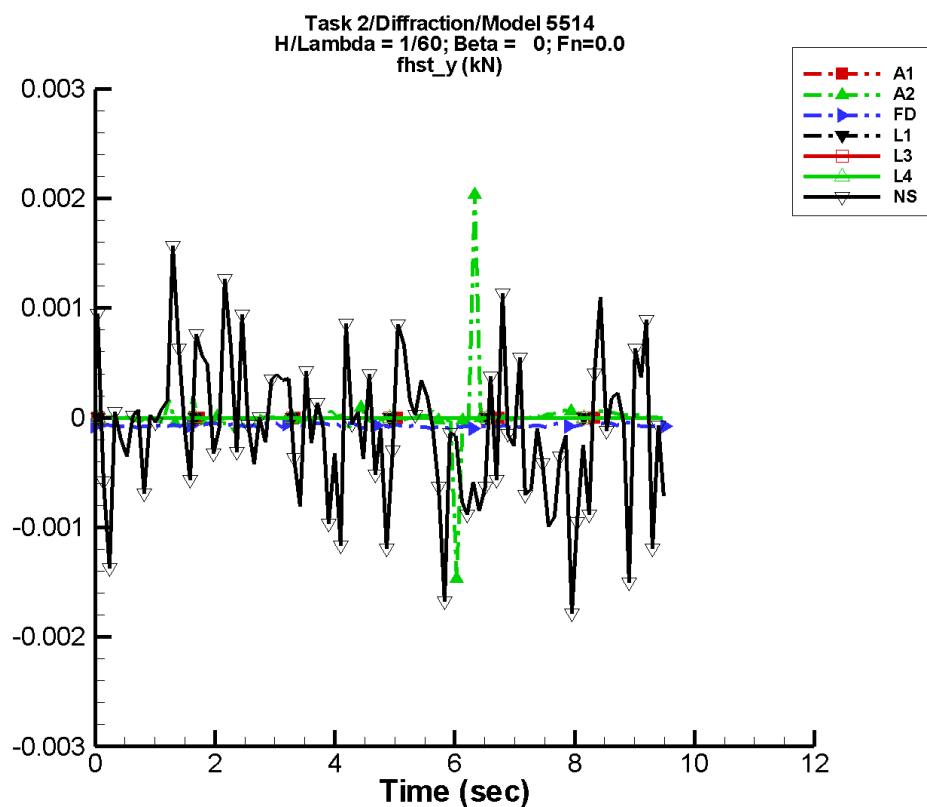
Table H-639. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.05E+03	1.59E+03	-120	577.	-118
FD	-23.0	919.	-78	1.12E+03	96
L1	—	—	—	—	—
L3	-20.0	930.	-145	1.09E+03	-44
L4	-20.0	930.	-145	1.09E+03	-44
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-640. Minimum and maximum of  $F_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.30E+03	7.26E+03	-1.30E+03	2.43E+03
FD	-1.41E+03	2.00E+03	-1.27E+03	1.75E+03
L1	—	—	—	—
L3	-1.38E+03	1.94E+03	-1.28E+03	1.89E+03
L4	-1.38E+03	1.94E+03	-1.28E+03	1.89E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-321. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-641. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

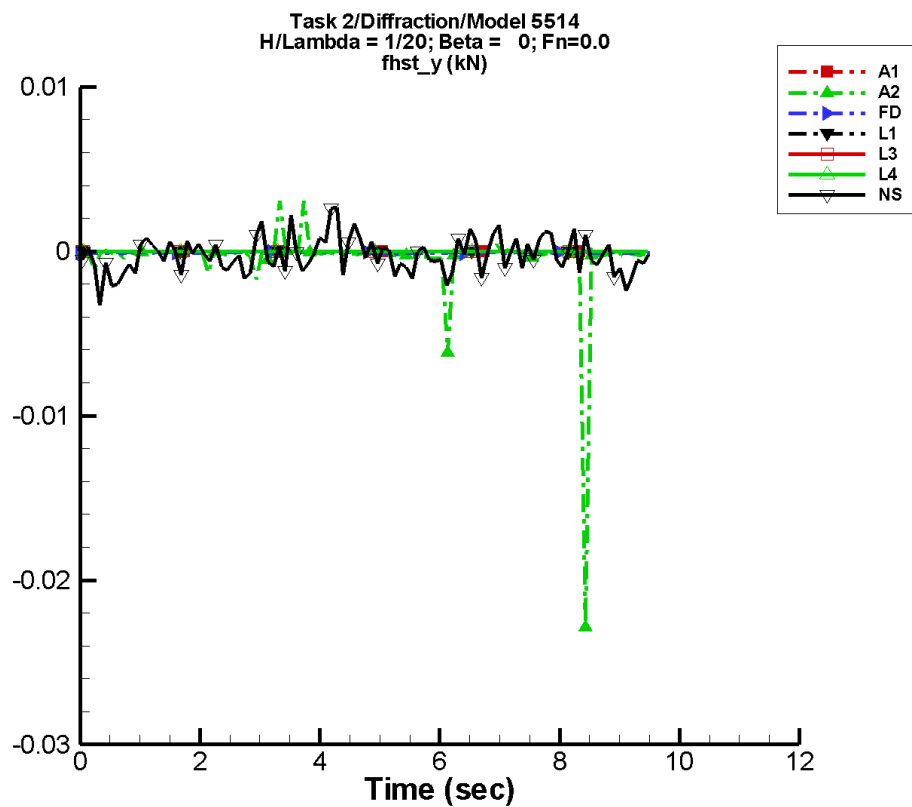
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	5.70E-06	3.81E-05	161	1.04E-05	-139
FD	-7.07E-05	7.46E-06	27	6.50E-06	174
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.68E-04	2.20E-04	-10	7.75E-05	-71

Table H-642. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.47E-03	2.04E-03	-9.43E-05	1.66E-04
FD	-1.00E-04	-3.70E-05	-8.78E-05	-5.77E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.79E-03	1.56E-03	-7.08E-04	3.35E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-322. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

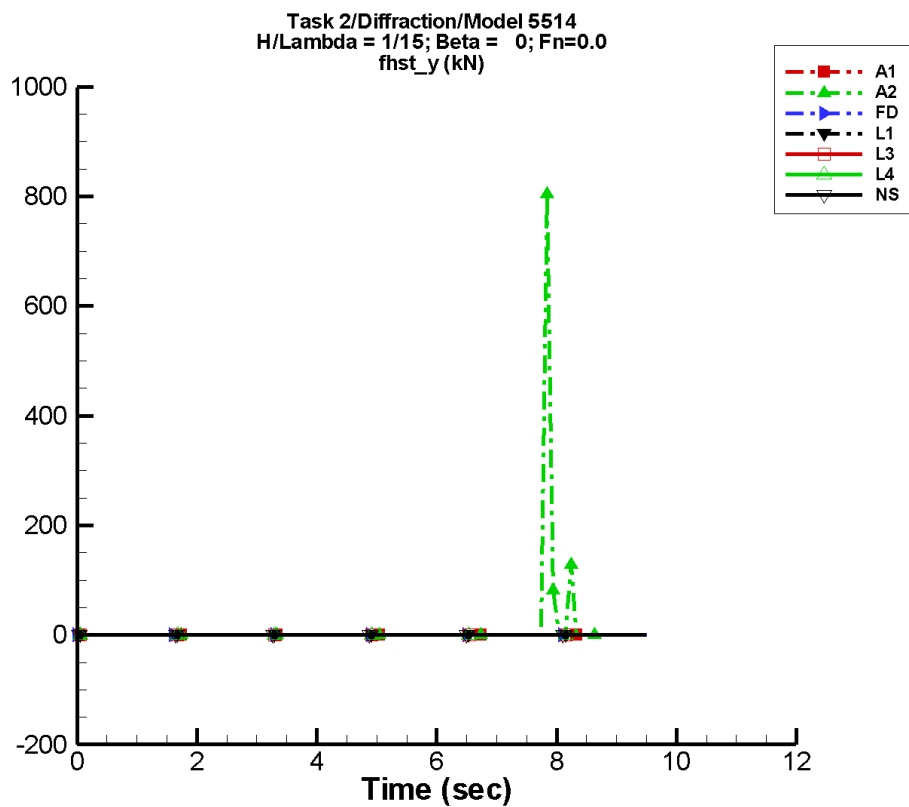
Table H-643. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-4.00E-04	5.97E-04	-36	2.46E-04	-10
FD	-7.62E-05	1.73E-05	-32	1.73E-05	-163
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.86E-04	2.66E-04	-88	2.40E-04	-137

Table H-644. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-2.28E-02	3.06E-03	-3.23E-03	5.95E-04
FD	-1.40E-04	-1.26E-05	-1.07E-04	-3.08E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.26E-03	2.67E-03	-1.36E-03	8.77E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-323. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

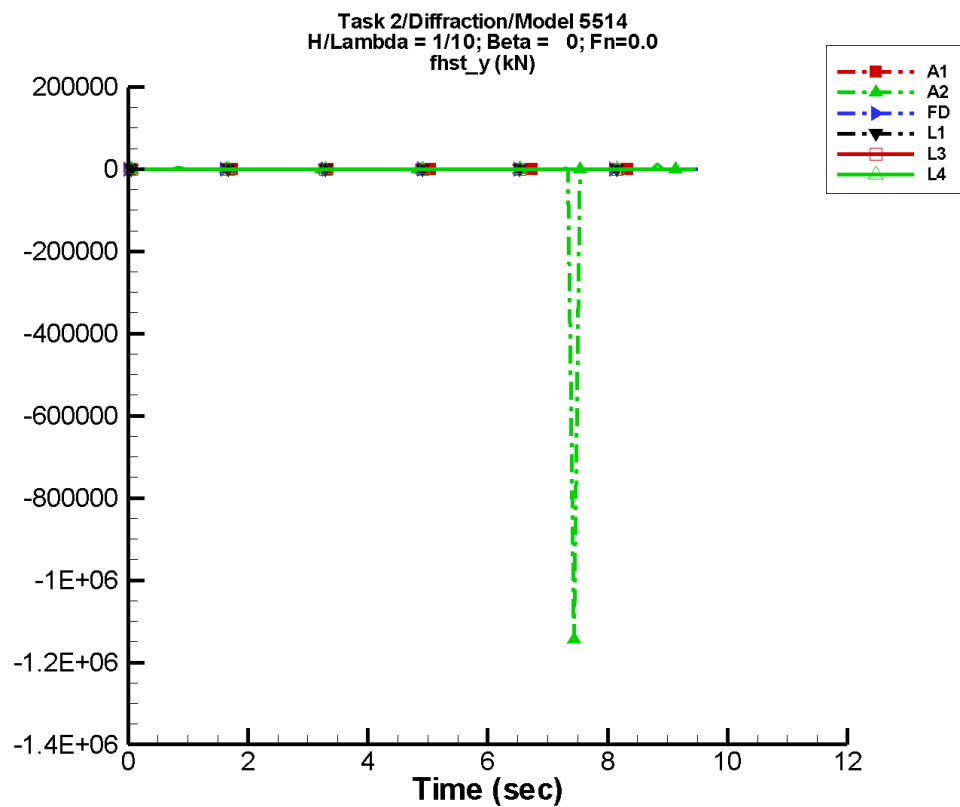
Table H-645. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	11.4	20.6	143	19.8	-152
FD	-6.46E-05	1.29E-05	-62	6.57E-06	126
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.31E-04	2.70E-04	-51	8.30E-05	169

Table H-646. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-4.78E-02	805.	-9.67	126.
FD	-1.47E-04	6.95E-06	-8.76E-05	-3.78E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.53E-03	2.74E-03	-1.15E-03	1.02E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-324. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

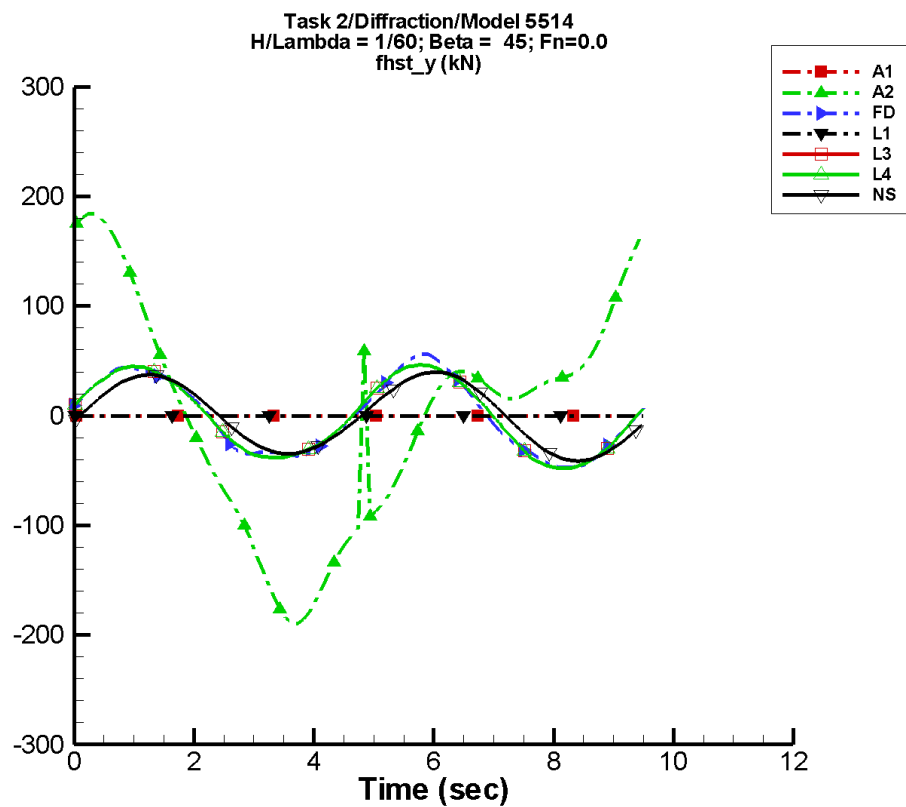
Table H-647. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.28E+04	2.35E+04	-20	2.23E+04	62
FD	-5.58E-05	3.10E-05	-72	6.88E-06	102
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-648. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.14E+06	1.28E+04	-1.52E+05	1.36E+04
FD	-1.17E-04	2.95E-05	-9.19E-05	-9.31E-06
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-325. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-649. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

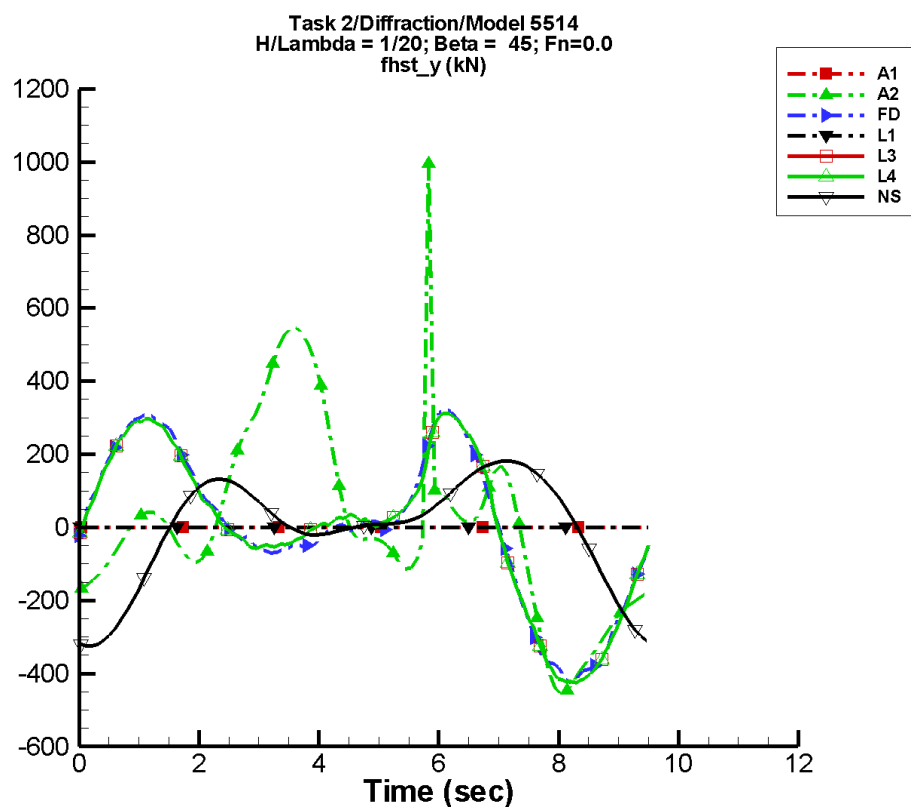
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.35	128.	106	64.7	17
FD	0.143	2.65	-59	44.8	1
L1	—	—	—	—	—
L3	1.80E-02	2.55	-49	44.8	5
L4	1.80E-02	2.55	-49	44.8	5
NF	—	—	—	—	—
NS	-0.153	2.58	-79	38.3	-4

Table H-650. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-189.	184.	-180.	180.
FD	-47.4	56.1	-45.4	51.3
L1	—	—	—	—
L3	-47.9	46.3	-47.4	45.5
L4	-47.9	46.3	-47.4	45.5
NF	—	—	—	—
NS	-41.3	39.7	-39.6	38.1



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-326. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

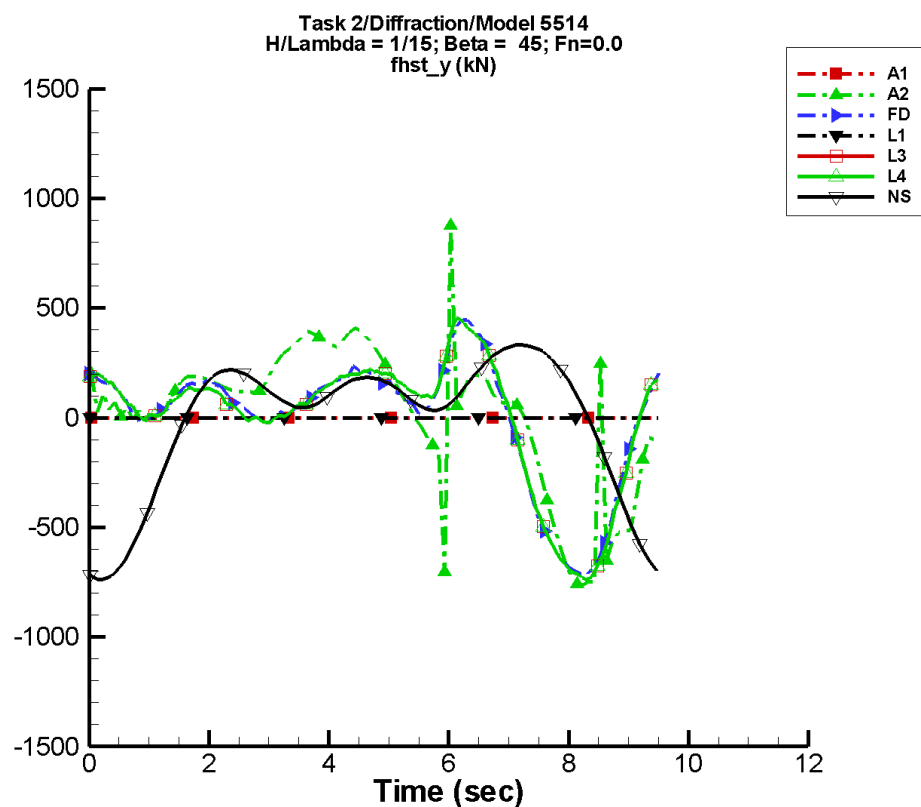
Table H-651. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	13.0	250.	-58	36.9	-100
FD	5.42	115.	-37	243.	-6
L1	—	—	—	—	—
L3	3.33	117.	-36	249.	-4
L4	3.33	117.	-36	249.	-4
NF	—	—	—	—	—
NS	-6.71	119.	-108	168.	-92

Table H-652. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-456.	996.	-413.	503.
FD	-425.	324.	-399.	291.
L1	—	—	—	—
L3	-425.	313.	-420.	300.
L4	-425.	313.	-420.	300.
NF	—	—	—	—
NS	-325.	182.	-325.	175.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-327. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

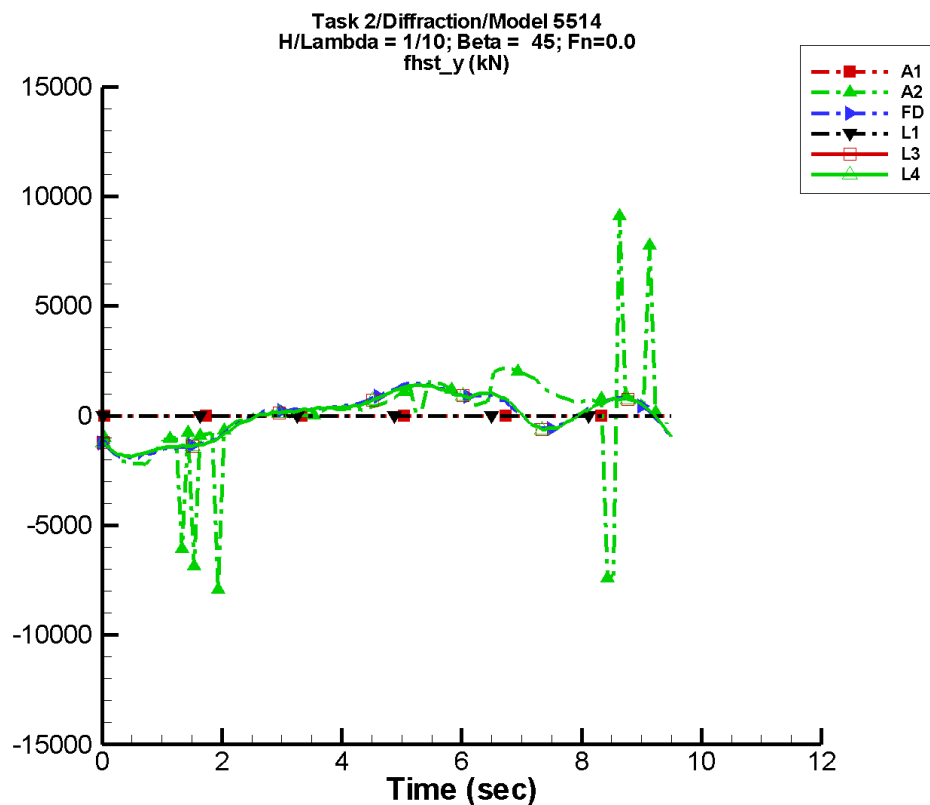
Table H-653. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	35.3	327.	-47	125.	-2
FD	2.87	227.	-59	219.	9
L1	—	—	—	—	—
L3	-1.86	218.	-62	243.	15
L4	-1.86	218.	-62	243.	15
NF	—	—	—	—	—
NS	-17.3	309.	-102	304.	-101

Table H-654. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-761.	2.07E+03	-634.	401.
FD	-716.	445.	-676.	367.
L1	—	—	—	—
L3	-739.	455.	-717.	413.
L4	-739.	455.	-717.	413.
NF	—	—	—	—
NS	-737.	334.	-731.	326.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-328. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

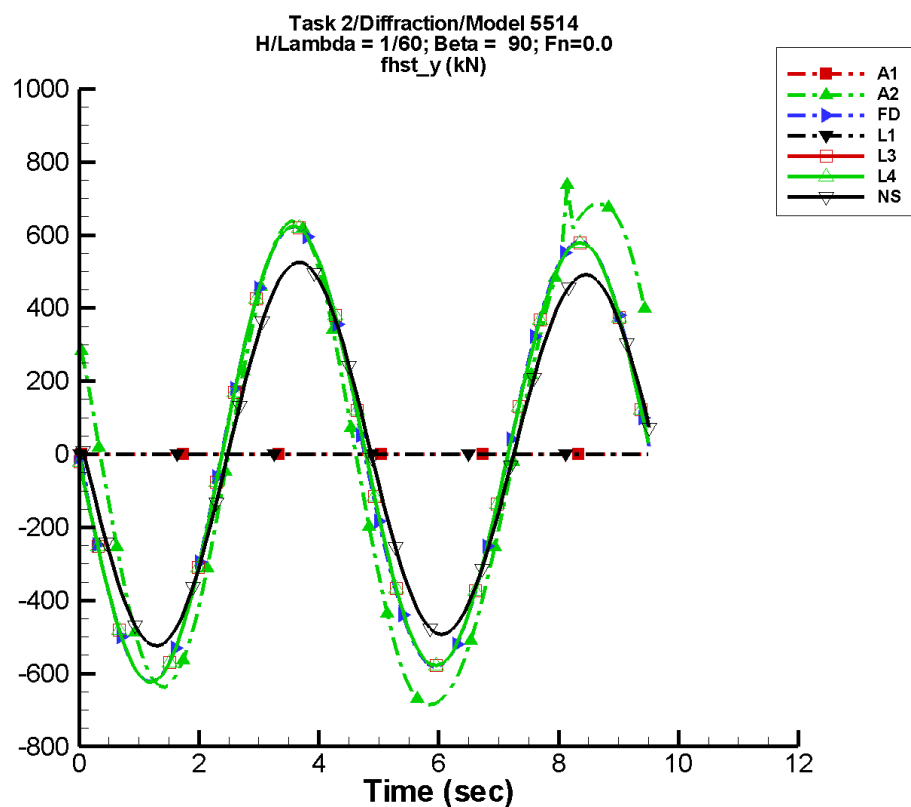
Table H-655. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	20.0	1.57E+03	-144	554.	-167
FD	-40.2	1.14E+03	-125	336.	168
L1	—	—	—	—	—
L3	-35.1	1.16E+03	-125	348.	159
L4	-35.1	1.16E+03	-125	348.	159
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-656. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-8.11E+03	9.12E+03	-2.71E+03	1.80E+03
FD	-1.97E+03	1.47E+03	-1.81E+03	1.37E+03
L1	—	—	—	—
L3	-1.89E+03	1.40E+03	-1.80E+03	1.37E+03
L4	-1.89E+03	1.40E+03	-1.80E+03	1.37E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-329. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-657. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

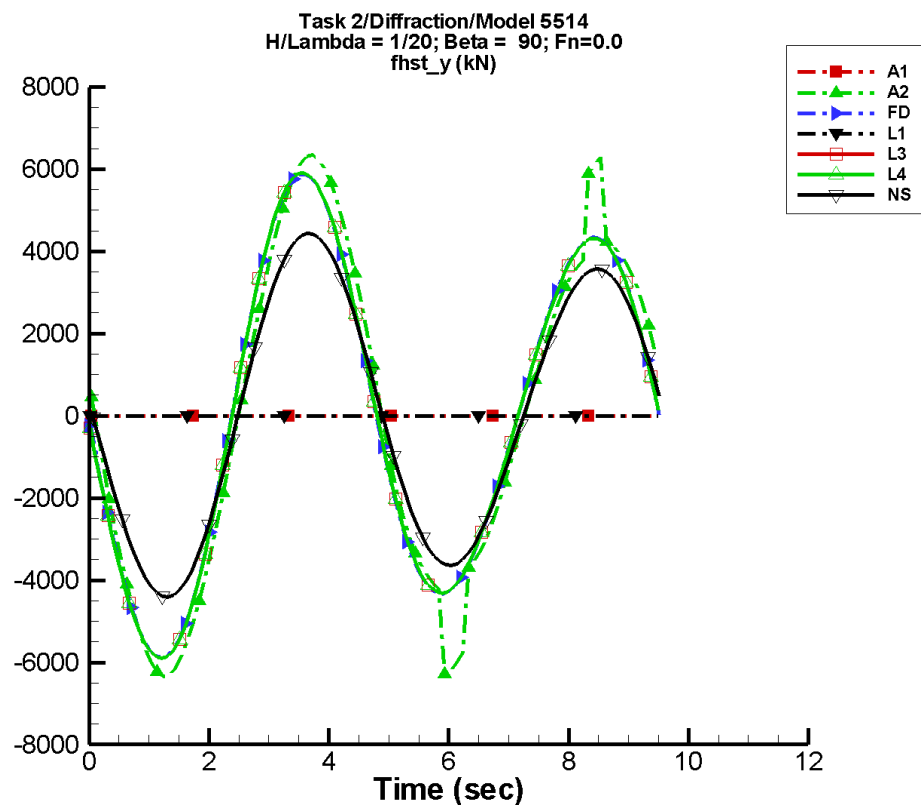
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.11	139.	85	663.	161
FD	0.258	16.8	-95	605.	169
L1	—	—	—	—	—
L3	-0.309	21.6	-92	601.	173
L4	-0.309	21.6	-92	601.	173
NF	—	—	—	—	—
NS	-0.353	14.9	-94	510.	172

Table H-658. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-686.	738.	-666.	673.
FD	-623.	623.	-597.	595.
L1	—	—	—	—
L3	-624.	624.	-614.	613.
L4	-624.	624.	-614.	613.
NF	—	—	—	—
NS	-524.	526.	-505.	504.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-330. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

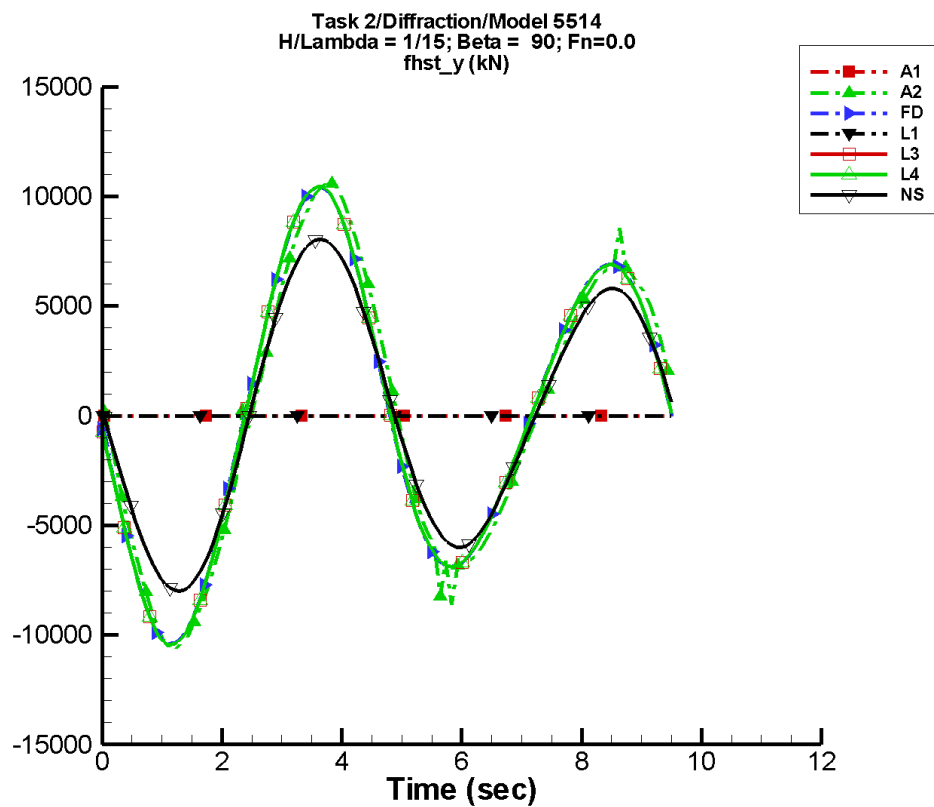
Table H-659. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	30.4	444.	-98	5.59E+03	161
FD	12.3	669.	-95	5.19E+03	168
L1	—	—	—	—	—
L3	-1.87	700.	-95	5.13E+03	173
L4	-1.87	700.	-95	5.13E+03	173
NF	—	—	—	—	—
NS	-12.0	367.	-94	4.03E+03	172

Table H-660. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-6.34E+03	7.03E+03	-6.05E+03	5.99E+03
FD	-5.88E+03	5.88E+03	-5.64E+03	5.62E+03
L1	—	—	—	—
L3	-5.90E+03	5.90E+03	-5.81E+03	5.81E+03
L4	-5.90E+03	5.90E+03	-5.81E+03	5.81E+03
NF	—	—	—	—
NS	-4.41E+03	4.44E+03	-4.25E+03	4.25E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-331. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

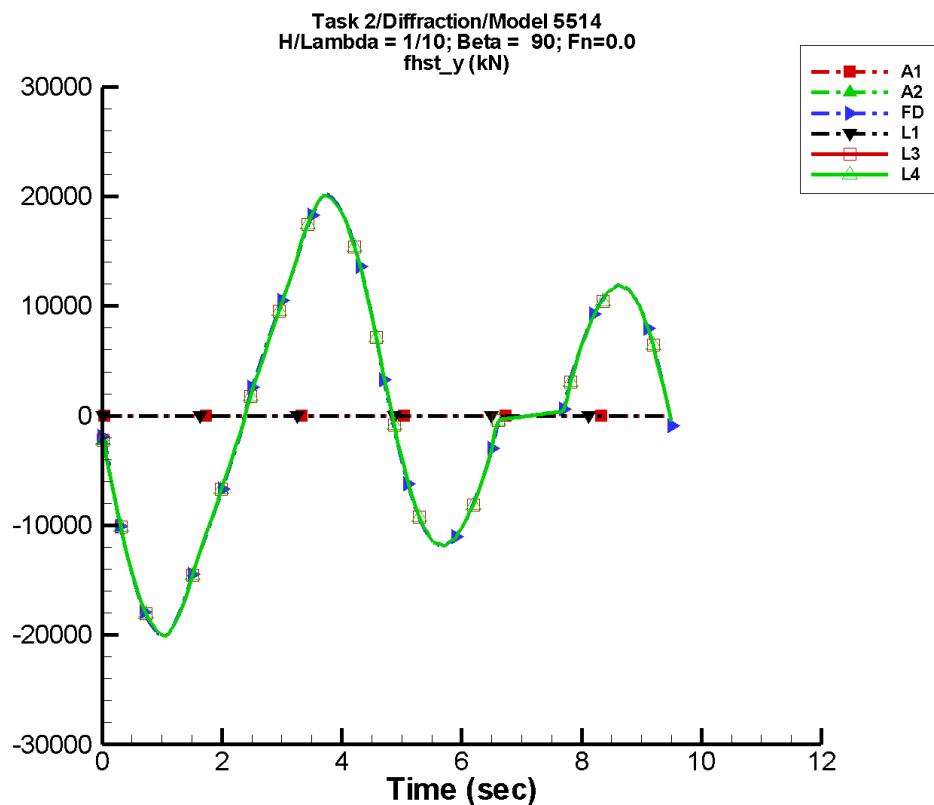
Table H-661. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-17.0	1.46E+03	-98	8.78E+03	162
FD	23.9	1.56E+03	-95	8.71E+03	168
L1	—	—	—	—	—
L3	-10.1	1.60E+03	-94	8.59E+03	174
L4	-10.1	1.60E+03	-94	8.59E+03	174
NF	—	—	—	—	—
NS	-34.7	954.	-94	6.97E+03	173

Table H-662. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.06E+04	1.06E+04	-1.00E+04	1.00E+04
FD	-1.04E+04	1.04E+04	-9.93E+03	9.93E+03
L1	—	—	—	—
L3	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
L4	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
NF	—	—	—	—
NS	-8.00E+03	8.05E+03	-7.81E+03	7.86E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-332. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

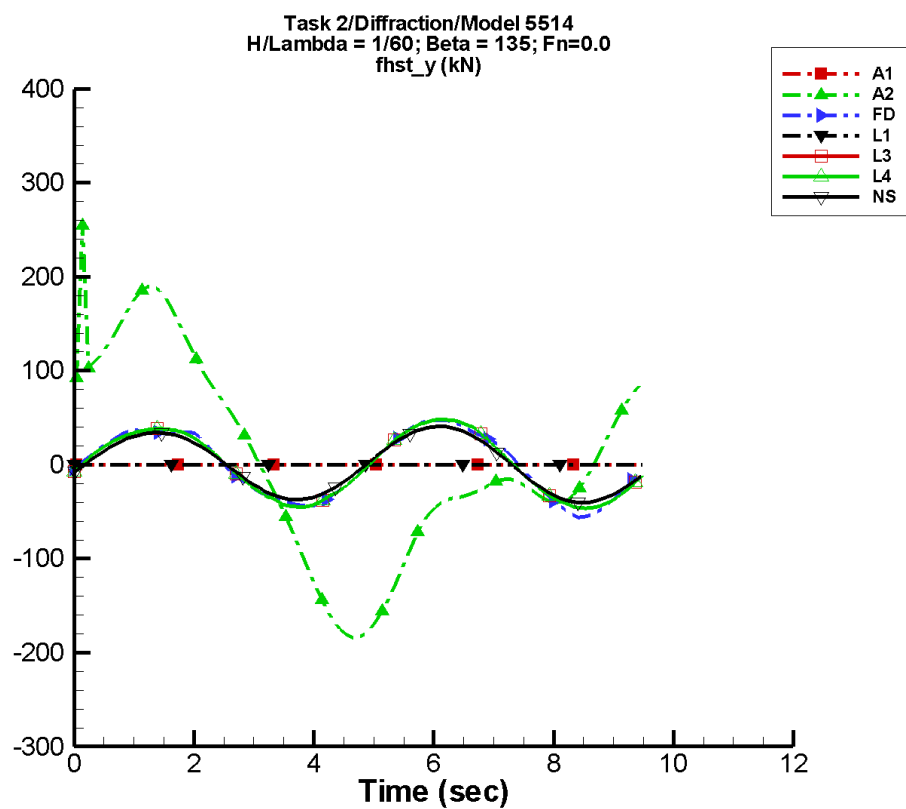
Table H-663. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.90E+03	2.11E+04	80	1.49E+04	169
FD	5.94	4.40E+03	-96	1.46E+04	169
L1	—	—	—	—	—
L3	-139.	4.41E+03	-93	1.41E+04	175
L4	-139.	4.41E+03	-93	1.41E+04	175
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-664. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-2.82E+03	-2.30E+03	-2.82E+03	-2.30E+03
FD	-2.02E+04	2.03E+04	-1.88E+04	1.87E+04
L1	—	—	—	—
L3	-2.01E+04	2.01E+04	-1.95E+04	1.95E+04
L4	-2.01E+04	2.01E+04	-1.95E+04	1.95E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-333. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-665. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

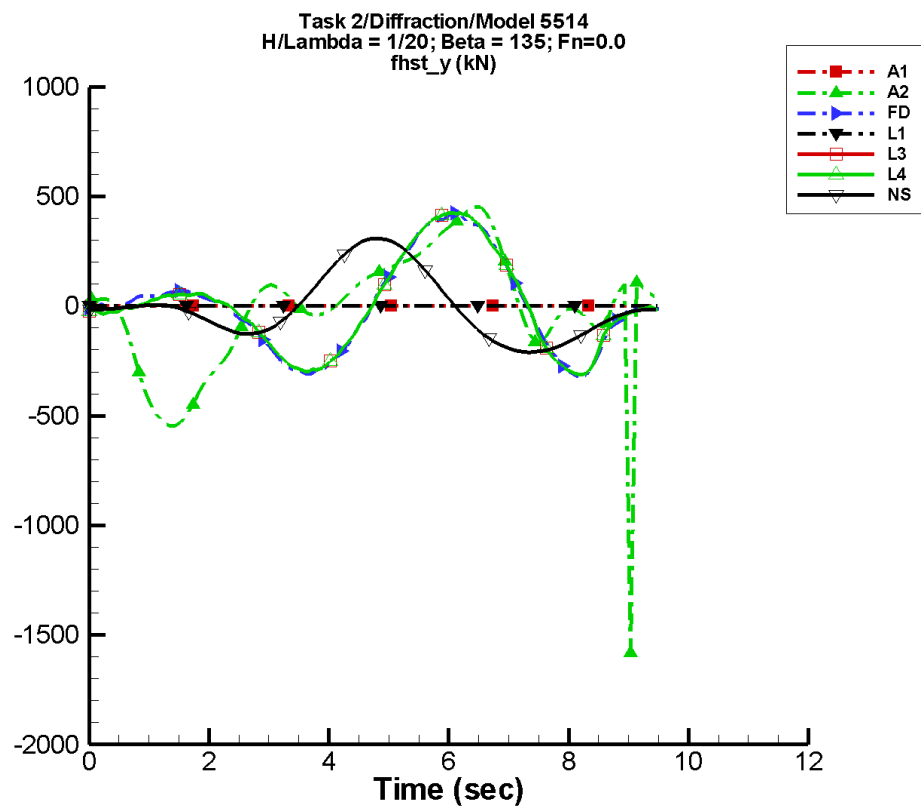
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	0.819	131.	58	61.7	-44
FD	0.120	2.39	-135	44.7	-23
L1	—	—	—	—	—
L3	5.06E-02	2.65	-141	44.4	-20
L4	5.06E-02	2.65	-141	44.4	-20
NF	—	—	—	—	—
NS	-0.186	2.80	-107	38.0	-11

Table H-666. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-184.	255.	-176.	178.
FD	-56.3	47.4	-51.2	45.4
L1	—	—	—	—
L3	-46.4	47.9	-45.5	47.4
L4	-46.4	47.9	-45.5	47.4
NF	—	—	—	—
NS	-40.3	40.9	-38.7	39.2



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-334. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

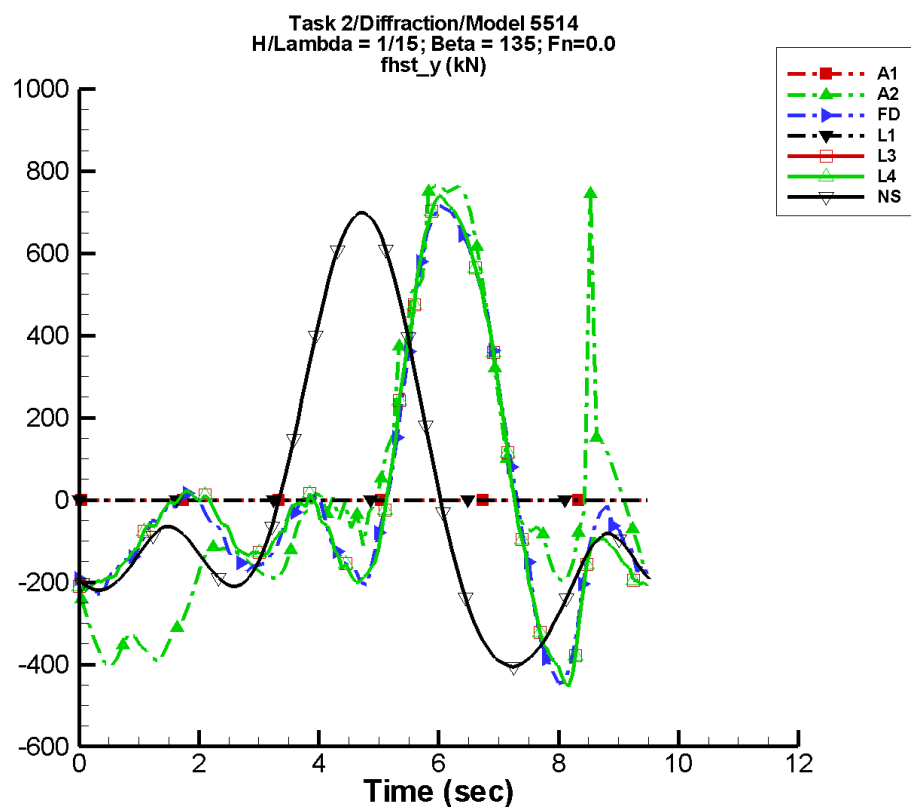
Table H-667. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-20.3	282.	-140	68.3	85
FD	-3.66	116.	-153	242.	-15
L1	—	—	—	—	—
L3	-4.90	123.	-147	236.	-14
L4	-4.90	123.	-147	236.	-14
NF	—	—	—	—	—
NS	-6.76	124.	-69	148.	75

Table H-668. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.58E+03	454.	-502.	413.
FD	-325.	425.	-290.	399.
L1	—	—	—	—
L3	-312.	426.	-300.	421.
L4	-312.	426.	-300.	421.
NF	—	—	—	—
NS	-210.	309.	-204.	297.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-335. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

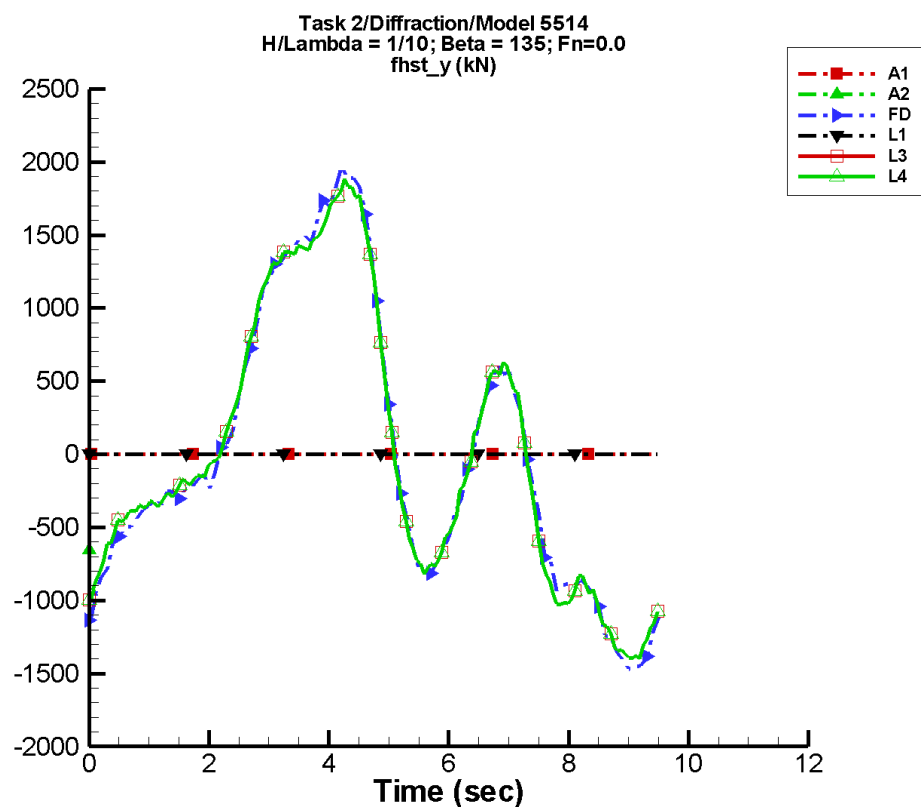
Table H-669. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.30	378.	-147	97.5	-36
FD	2.94	237.	-131	214.	-29
L1	—	—	—	—	—
L3	2.13	239.	-125	230.	-28
L4	2.13	239.	-125	230.	-28
NF	—	—	—	—	—
NS	-18.0	327.	-73	249.	89

Table H-670. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-407.	765.	-369.	741.
FD	-447.	718.	-366.	677.
L1	—	—	—	—
L3	-454.	740.	-413.	717.
L4	-454.	740.	-413.	717.
NF	—	—	—	—
NS	-406.	698.	-398.	682.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-336. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

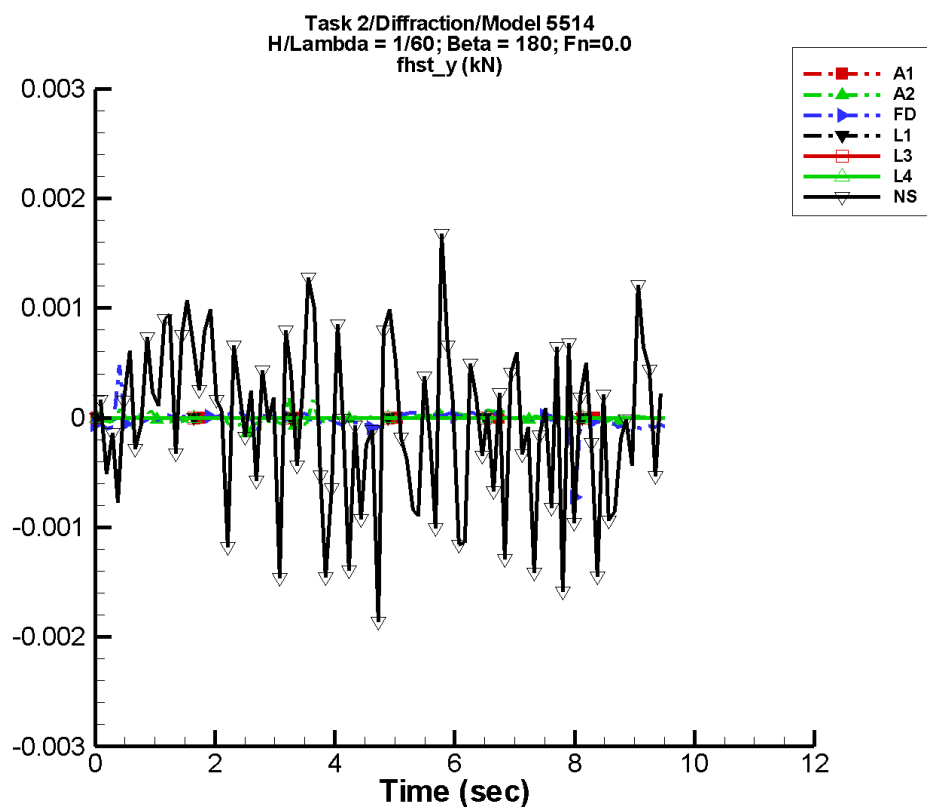
Table H-671. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.48E+03	1.52E+04	40	9.24E+03	-118
FD	26.0	1.09E+03	-65	329.	174
L1	—	—	—	—	—
L3	34.8	1.08E+03	-62	308.	176
L4	34.8	1.08E+03	-62	308.	176
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-672. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-653.	-541.	-653.	-541.
FD	-1.47E+03	1.97E+03	-1.37E+03	1.86E+03
L1	—	—	—	—
L3	-1.40E+03	1.88E+03	-1.36E+03	1.84E+03
L4	-1.40E+03	1.88E+03	-1.36E+03	1.84E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-337. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-673. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

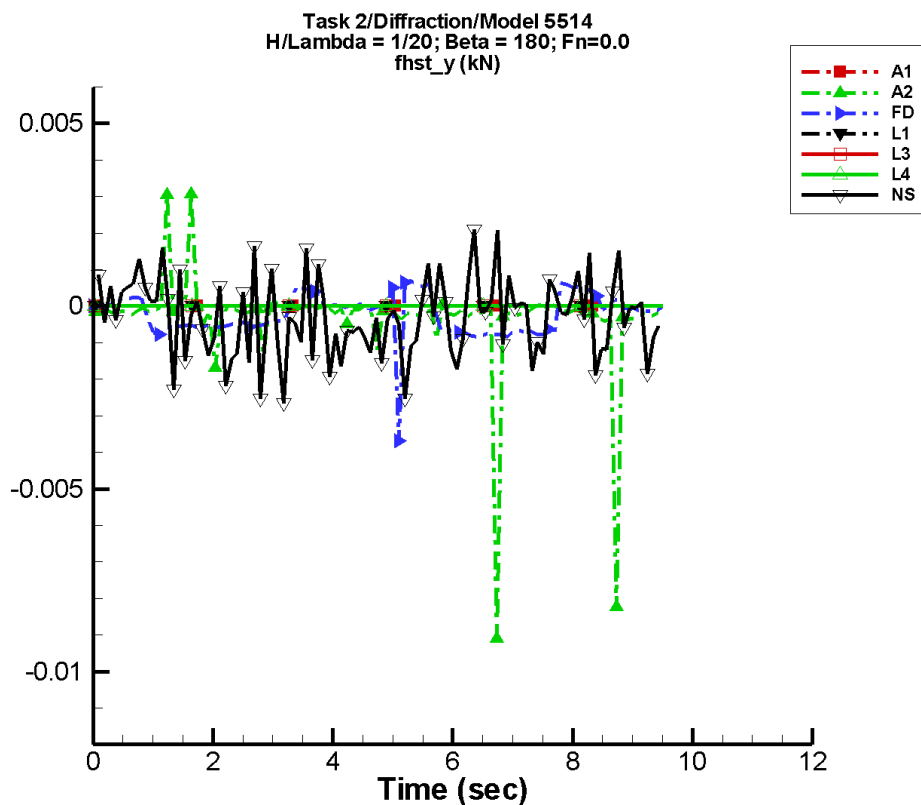
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.21E-06	2.70E-05	-173	2.20E-05	41
FD	-1.79E-05	2.64E-05	-73	4.19E-05	-36
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-9.27E-05	2.14E-04	1	1.73E-04	-58

Table H-674. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-9.35E-04	5.39E-04	-7.41E-05	1.34E-04
FD	-7.24E-04	4.78E-04	-1.03E-04	3.79E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.86E-03	1.68E-03	-6.06E-04	1.03E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-338. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

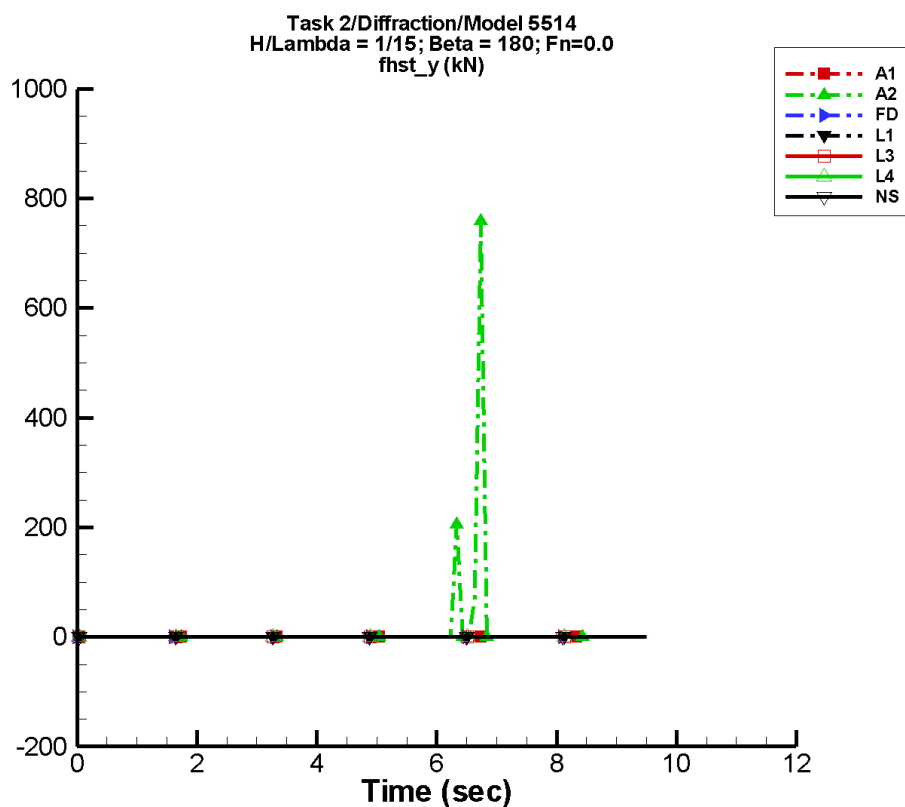
Table H-675. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.95	14.8	78	17.0	62
FD	-2.22E-04	5.40E-05	63	4.35E-04	120
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.67E-04	3.66E-04	120	2.51E-04	-6

Table H-676. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.22	1.18E+03	-13.5	157.
FD	-3.69E-03	6.93E-04	-8.06E-04	3.52E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.66E-03	2.33E-03	-9.09E-04	4.92E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-339. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

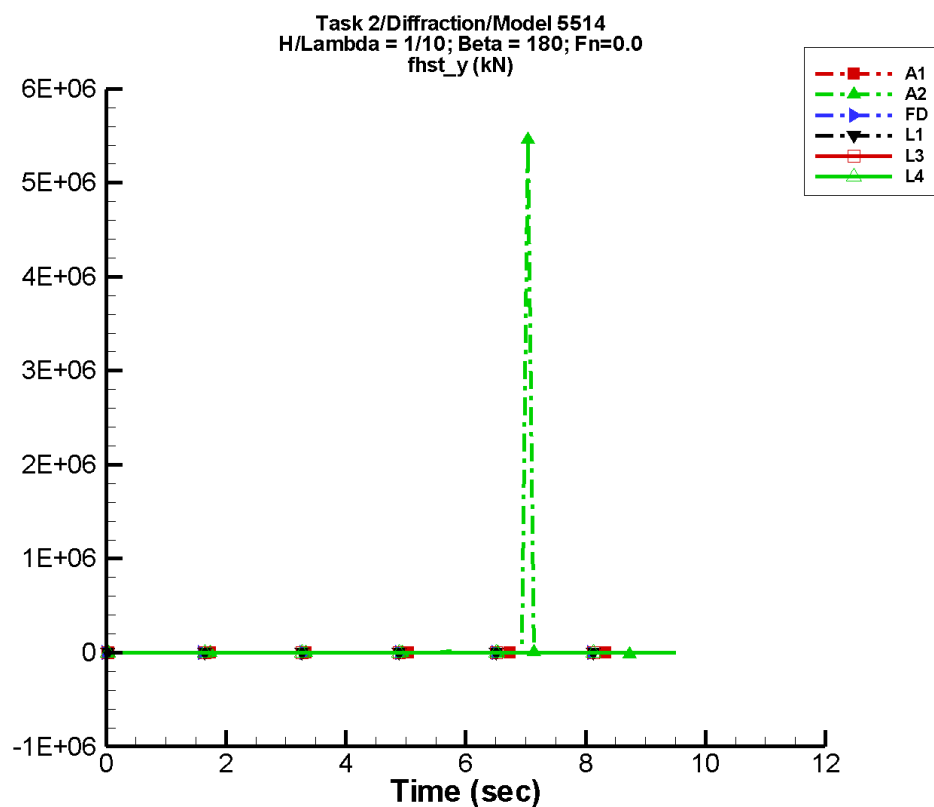
Table H-677. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	10.9	22.2	-168	19.6	-60
FD	-3.44E-04	4.37E-04	2	2.72E-04	119
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.02E-05	2.91E-04	52	3.16E-04	76

Table H-678. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-3.37E-02	759.	-8.85	126.
FD	-8.06E-03	5.30E-03	-1.20E-03	3.27E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.85E-03	3.26E-03	-9.01E-04	1.22E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-340. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

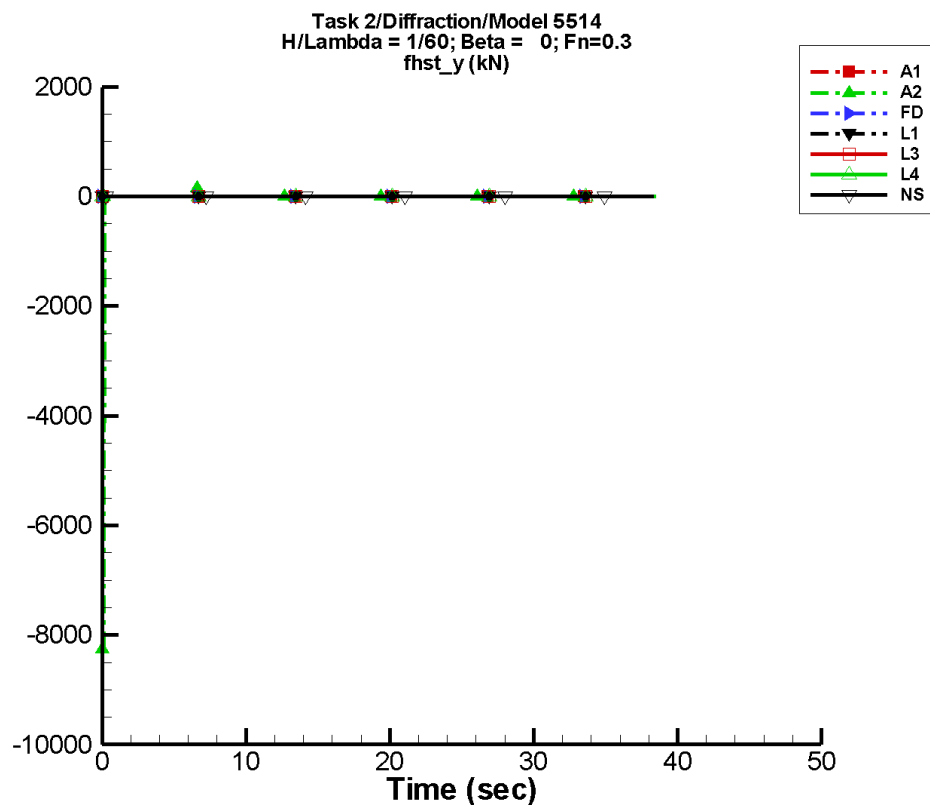
Table H-679. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.02E+04	1.15E+05	176	1.05E+05	-89
FD	-2.79E-04	3.13E-04	63	3.38E-04	-136
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-680. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.32E+04	5.46E+06	-6.22E+04	7.29E+05
FD	-1.62E-02	9.01E-04	-2.35E-03	3.03E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-341. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-681. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

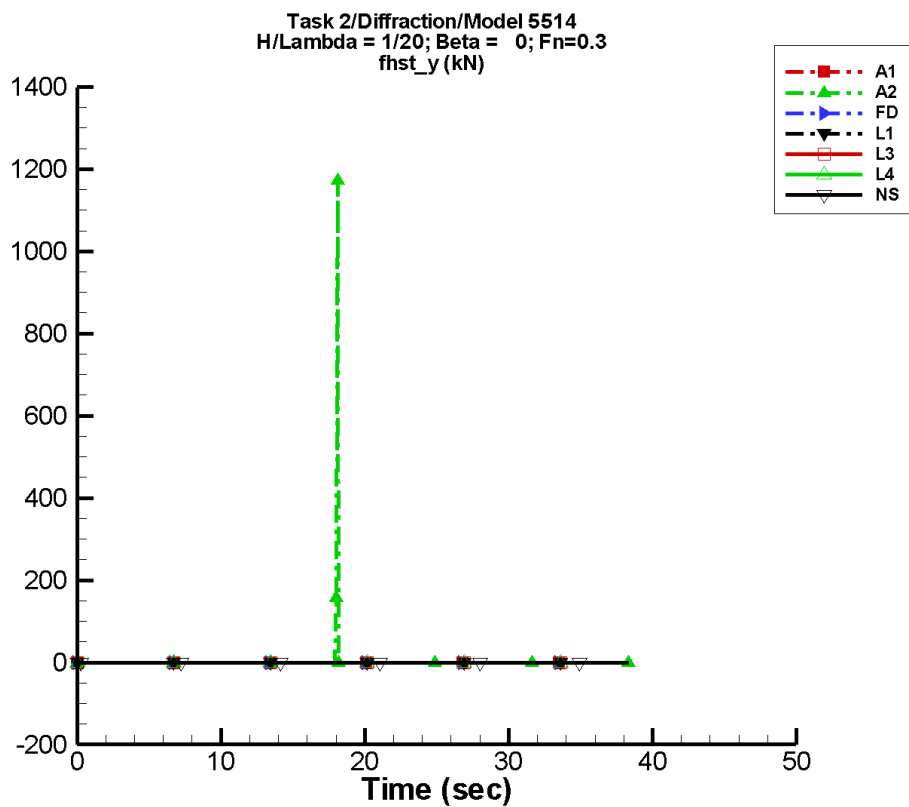
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	0.399	0.865	28	1.03	-29
FD	-7.26E-05	6.68E-06	48	5.21E-06	-153
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.93E-04	2.35E-04	11	1.12E-04	70

Table H-682. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-3.19E-03	157.	-1.79	20.9
FD	-1.01E-04	-3.70E-05	-8.98E-05	-5.48E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.27E-03	1.29E-03	-7.05E-04	4.18E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-342. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

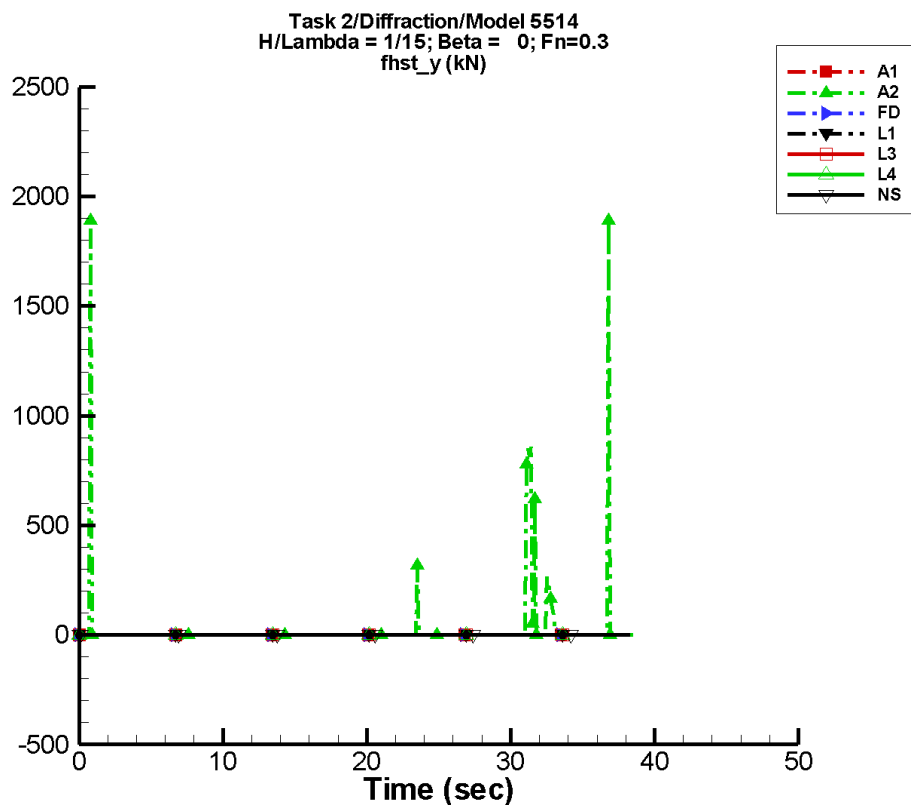
Table H-683. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.65	6.94	-70	6.23	121
FD	-7.53E-05	1.28E-05	-30	1.61E-05	-138
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.21E-04	2.44E-04	-40	2.19E-04	-3

Table H-684. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.16	1.17E+03	-15.0	176.
FD	-1.63E-04	3.05E-06	-1.23E-04	-1.76E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.96E-03	2.70E-03	-9.99E-04	1.11E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-343. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

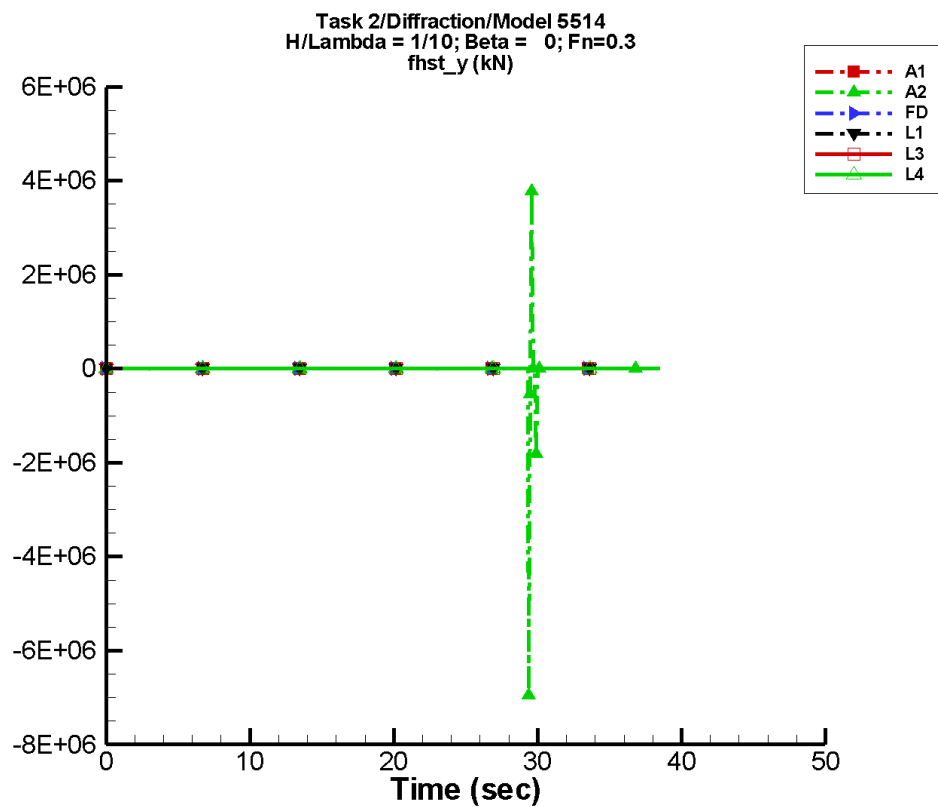
Table H-685. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	25.4	41.4	135	22.8	-180
FD	-6.64E-05	1.29E-05	-39	6.07E-06	155
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.26E-04	4.00E-04	-41	2.29E-04	-137

Table H-686. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-4.18E-02	1.89E+03	-25.4	473.
FD	-1.47E-04	1.38E-05	-9.93E-05	-1.79E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.18E-03	2.40E-03	-1.24E-03	9.19E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-344. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

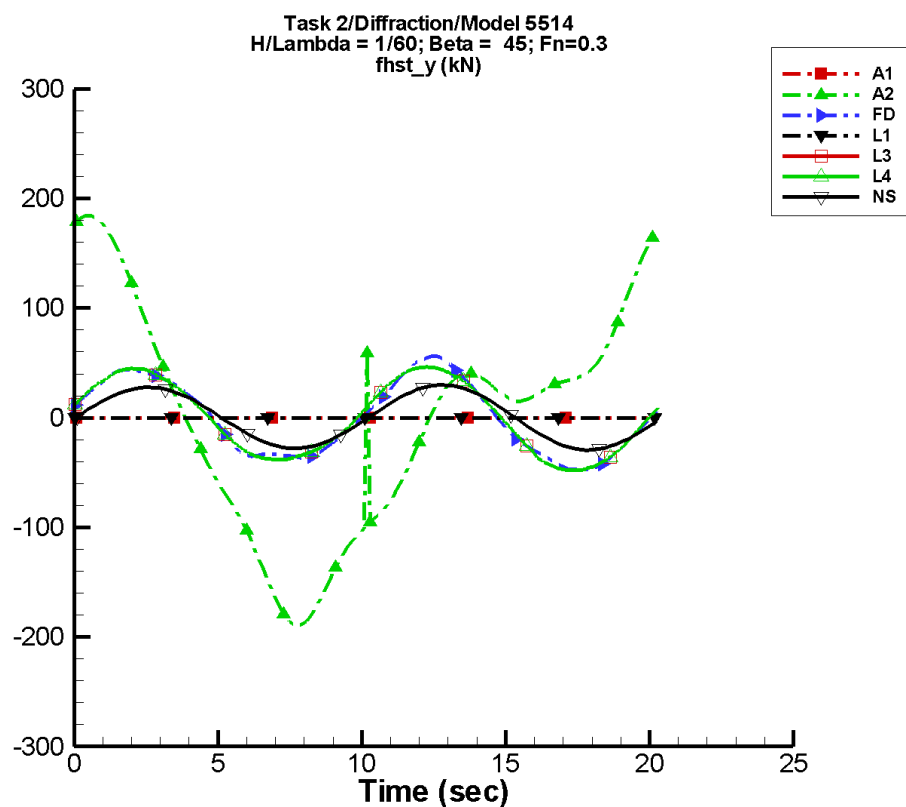
Table H-687. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.47E+04	2.90E+04	-3	2.54E+04	93
FD	-5.38E-05	3.19E-05	-51	2.15E-06	-163
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-688. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-6.95E+06	3.79E+06	-6.38E+05	6.06E+04
FD	-1.41E-04	6.16E-05	-1.15E-04	1.32E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-345. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-689. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

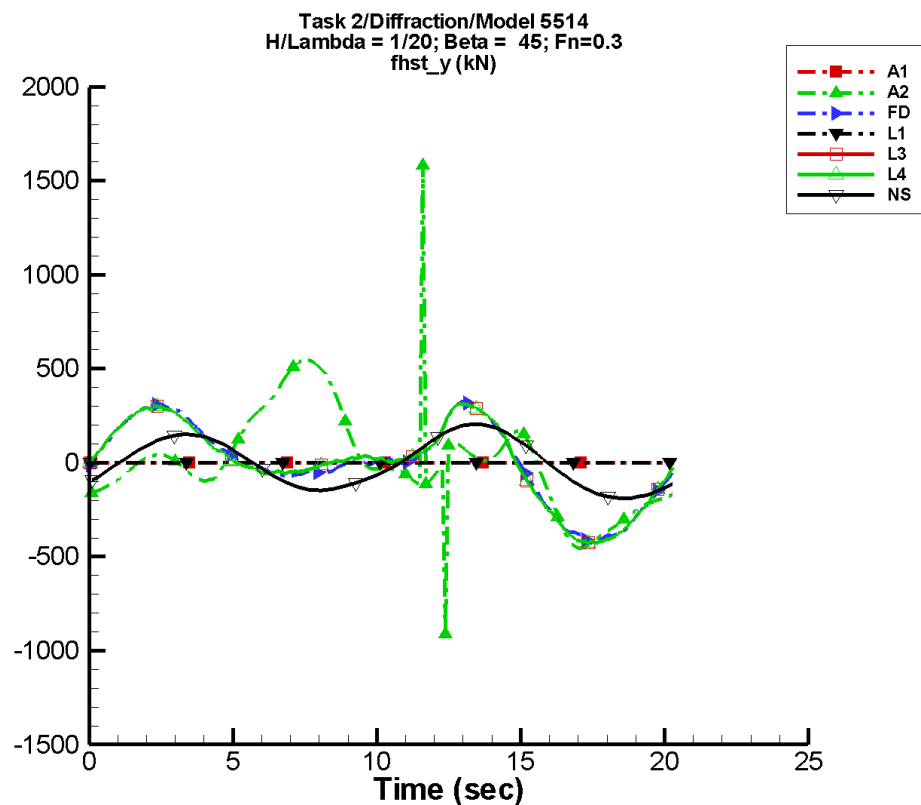
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	0.649	129.	104	63.3	13
FD	-2.85E-02	2.29	-69	45.4	-11
L1	—	—	—	—	—
L3	-2.55E-02	2.57	-43	44.5	7
L4	-2.55E-02	2.57	-43	44.5	7
NF	—	—	—	—	—
NS	-3.44E-02	0.826	-107	28.7	-4

Table H-690. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-190.	184.	-187.	183.
FD	-47.3	56.4	-47.1	54.9
L1	—	—	—	—
L3	-47.9	46.3	-47.8	46.0
L4	-47.9	46.3	-47.8	46.0
NF	—	—	—	—
NS	-29.5	29.8	-28.3	28.6



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-346. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

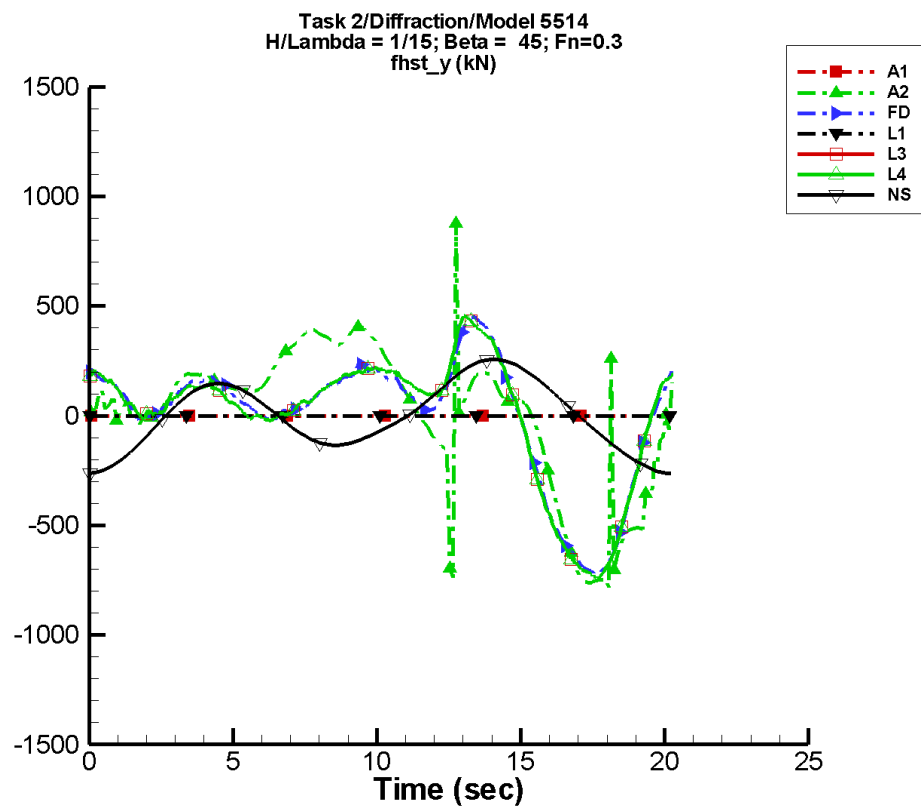
Table H-691. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-0.163	243.	-59	23.4	-143
FD	3.79	112.	-39	256.	-22
L1	—	—	—	—	—
L3	5.66	122.	-38	237.	1
L4	5.66	122.	-38	237.	1
NF	—	—	—	—	—
NS	-2.56	29.9	-109	172.	-28

Table H-692. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-910.	1.58E+03	-443.	536.
FD	-426.	327.	-411.	314.
L1	—	—	—	—
L3	-427.	312.	-423.	310.
L4	-427.	312.	-423.	310.
NF	—	—	—	—
NS	-190.	205.	-184.	196.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-347. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

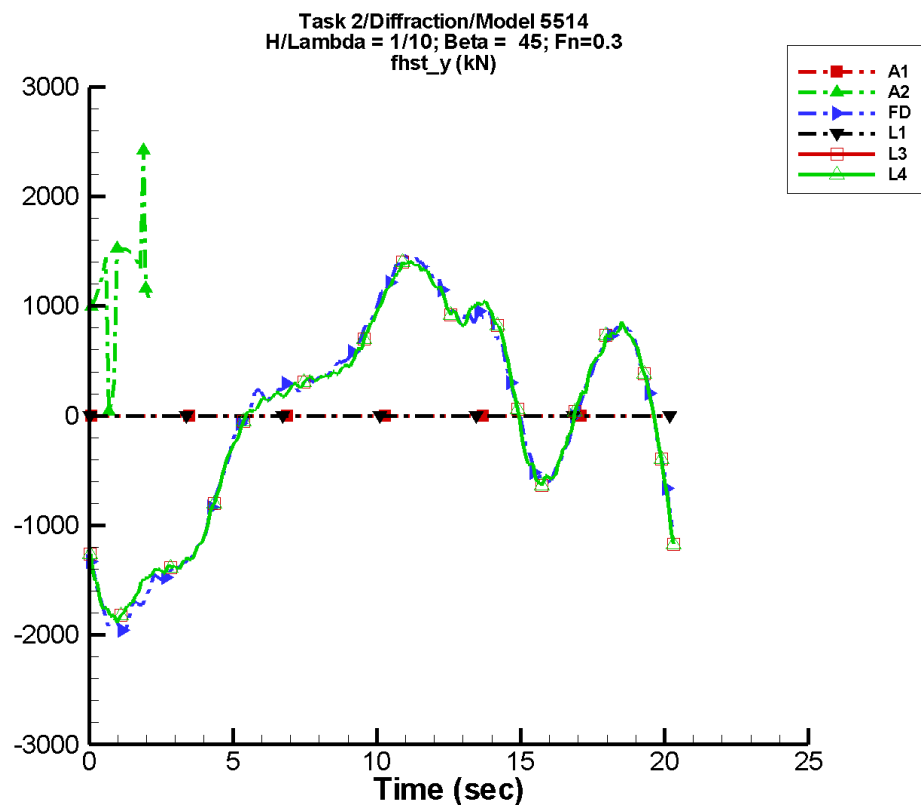
Table H-693. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	7.93	351.	-48	122.	-3
FD	-1.96	215.	-65	228.	-3
L1	—	—	—	—	—
L3	3.26	229.	-59	233.	18
L4	3.26	229.	-59	233.	18
NF	—	—	—	—	—
NS	-4.53	97.4	-122	193.	-65

Table H-694. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-781.	2.07E+03	-760.	418.
FD	-723.	450.	-707.	430.
L1	—	—	—	—
L3	-741.	455.	-731.	439.
L4	-741.	455.	-731.	439.
NF	—	—	—	—
NS	-264.	257.	-261.	251.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-348. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

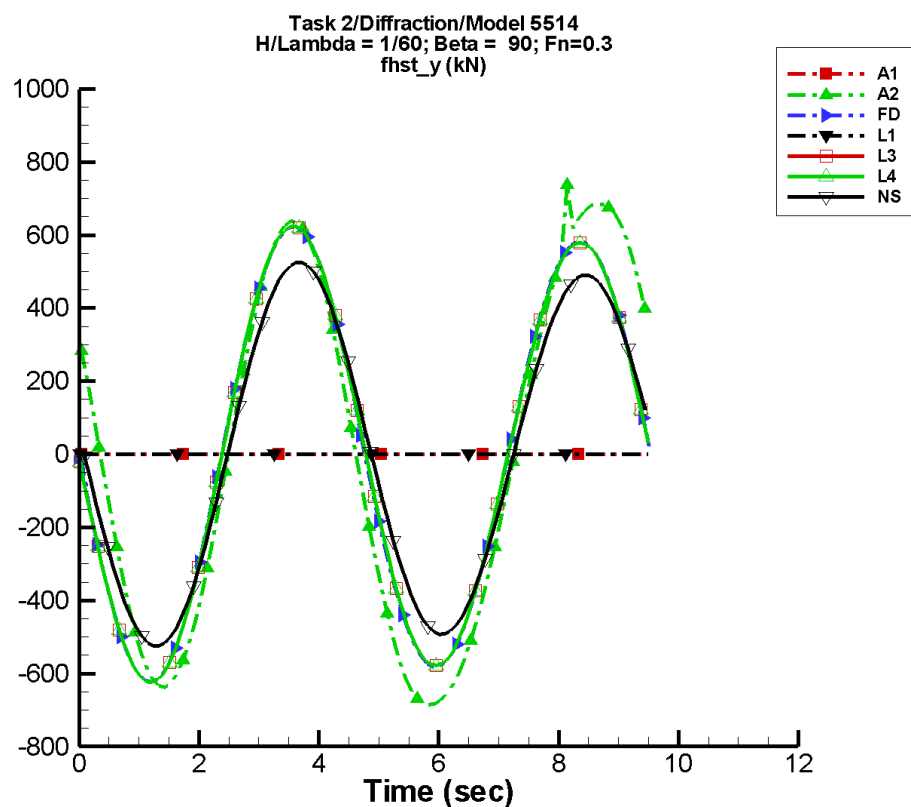
Table H-695. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	2.28E+03	2.85E+03	-32	936.	174
FD	-36.7	1.19E+03	-130	385.	145
L1	—	—	—	—	—
L3	-46.1	1.10E+03	-124	307.	175
L4	-46.1	1.10E+03	-124	307.	175
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-696. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-140.	2.42E+03	-108.	1.53E+03
FD	-1.97E+03	1.46E+03	-1.90E+03	1.44E+03
L1	—	—	—	—
L3	-1.89E+03	1.40E+03	-1.83E+03	1.39E+03
L4	-1.89E+03	1.40E+03	-1.83E+03	1.39E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-349. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-697. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

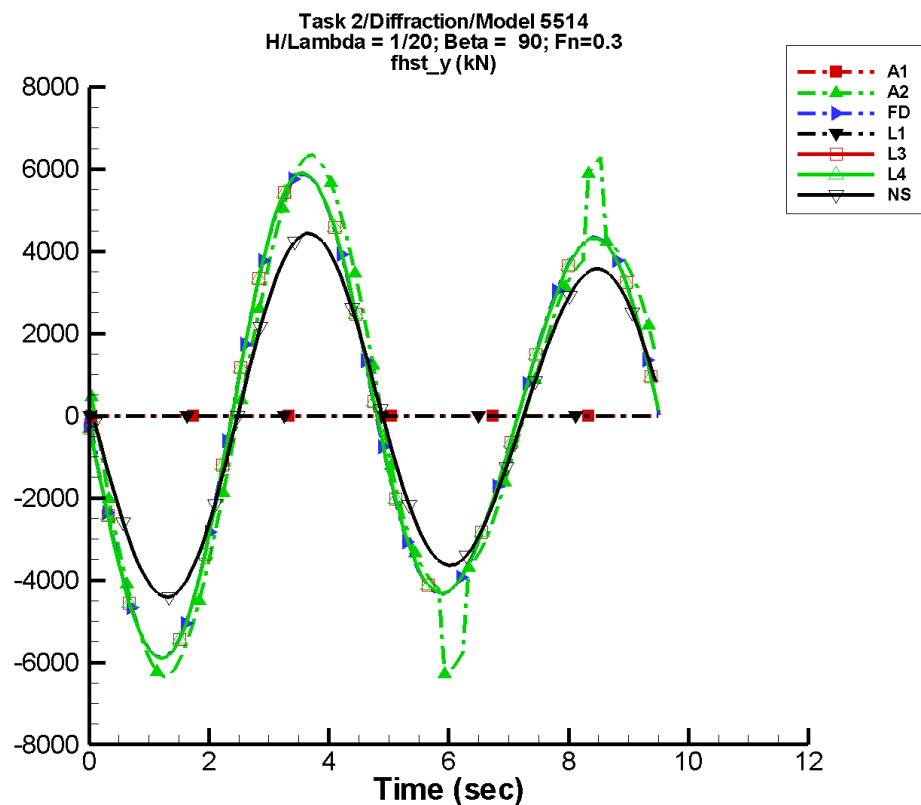
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.11	139.	85	663.	161
FD	0.259	16.8	-95	605.	169
L1	—	—	—	—	—
L3	-0.305	21.6	-92	601.	173
L4	-0.305	21.6	-92	601.	173
NF	—	—	—	—	—
NS	-0.362	14.9	-94	510.	172

Table H-698. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-686.	738.	-666.	673.
FD	-623.	623.	-597.	595.
L1	—	—	—	—
L3	-624.	624.	-614.	613.
L4	-624.	624.	-614.	613.
NF	—	—	—	—
NS	-524.	525.	-505.	504.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-350. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

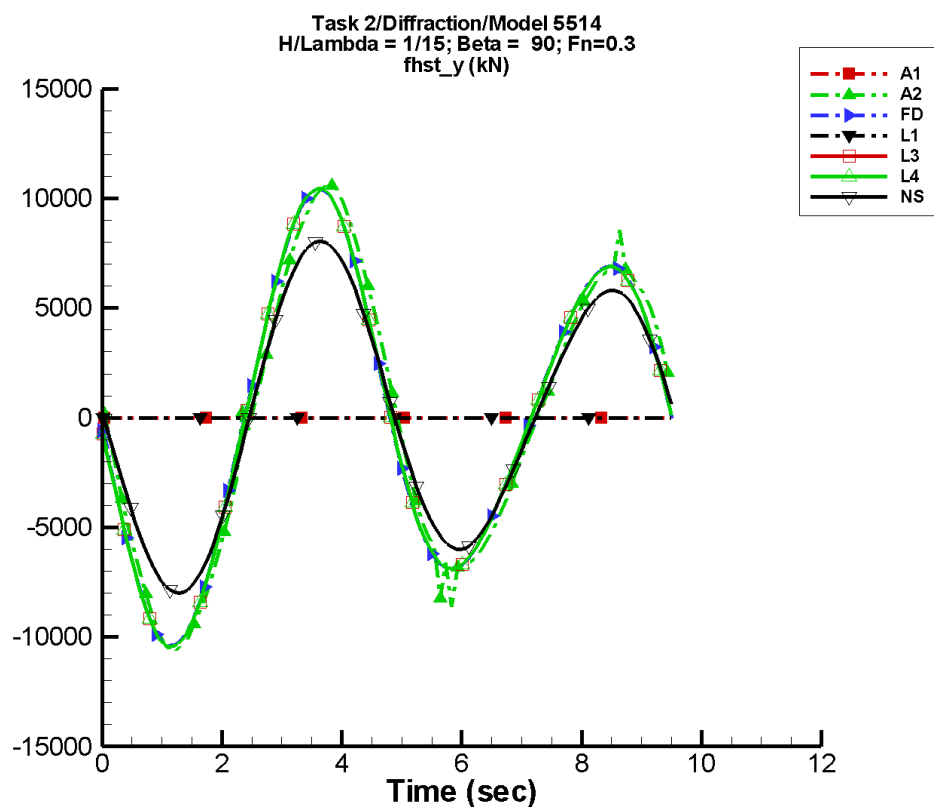
Table H-699. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	30.4	444.	-98	5.59E+03	161
FD	12.3	669.	-95	5.19E+03	168
L1	—	—	—	—	—
L3	-1.87	700.	-95	5.13E+03	173
L4	-1.87	700.	-95	5.13E+03	173
NF	—	—	—	—	—
NS	-12.2	367.	-94	4.03E+03	172

Table H-700. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-6.34E+03	7.03E+03	-6.05E+03	5.99E+03
FD	-5.88E+03	5.88E+03	-5.64E+03	5.62E+03
L1	—	—	—	—
L3	-5.90E+03	5.90E+03	-5.81E+03	5.81E+03
L4	-5.90E+03	5.90E+03	-5.81E+03	5.81E+03
NF	—	—	—	—
NS	-4.41E+03	4.43E+03	-4.25E+03	4.26E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-351. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

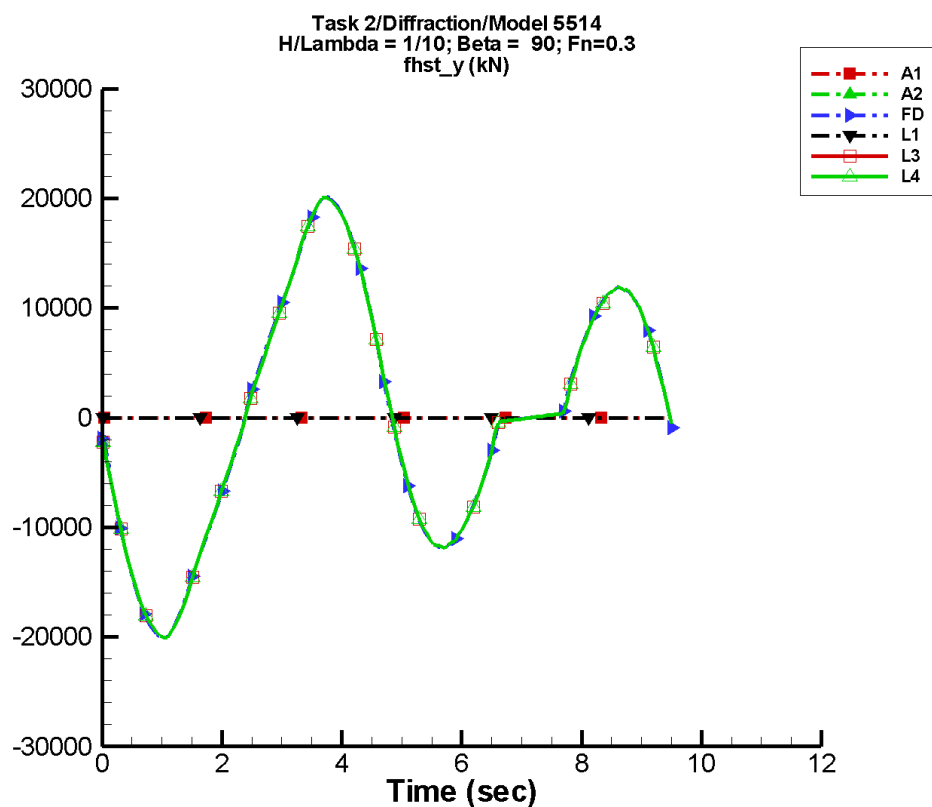
Table H-701. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-17.0	1.46E+03	-98	8.78E+03	162
FD	23.9	1.56E+03	-95	8.71E+03	168
L1	—	—	—	—	—
L3	-10.1	1.60E+03	-94	8.59E+03	174
L4	-10.1	1.60E+03	-94	8.59E+03	174
NF	—	—	—	—	—
NS	-34.7	954.	-94	6.97E+03	173

Table H-702. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.06E+04	1.06E+04	-1.00E+04	1.00E+04
FD	-1.04E+04	1.04E+04	-9.93E+03	9.93E+03
L1	—	—	—	—
L3	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
L4	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
NF	—	—	—	—
NS	-8.00E+03	8.05E+03	-7.81E+03	7.86E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-352. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

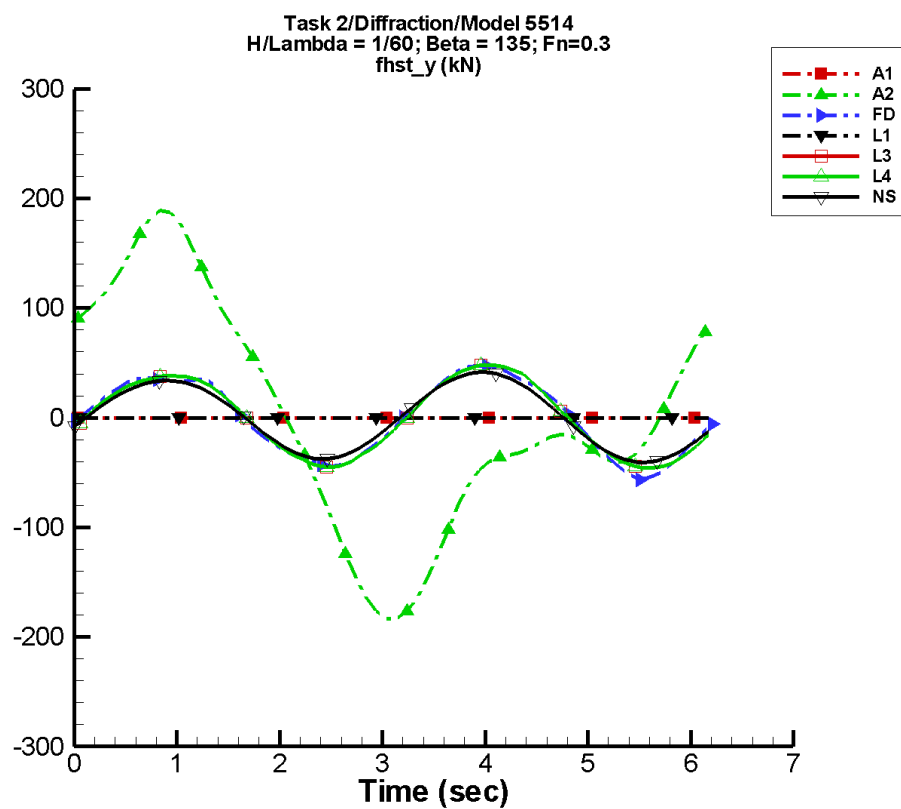
Table H-703. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.90E+03	2.11E+04	80	1.49E+04	169
FD	5.95	4.40E+03	-96	1.46E+04	169
L1	—	—	—	—	—
L3	-139.	4.41E+03	-93	1.41E+04	175
L4	-139.	4.41E+03	-93	1.41E+04	175
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-704. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-2.82E+03	-2.30E+03	-2.82E+03	-2.30E+03
FD	-2.02E+04	2.03E+04	-1.88E+04	1.87E+04
L1	—	—	—	—
L3	-2.01E+04	2.01E+04	-1.95E+04	1.95E+04
L4	-2.01E+04	2.01E+04	-1.95E+04	1.95E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-353. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-705. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

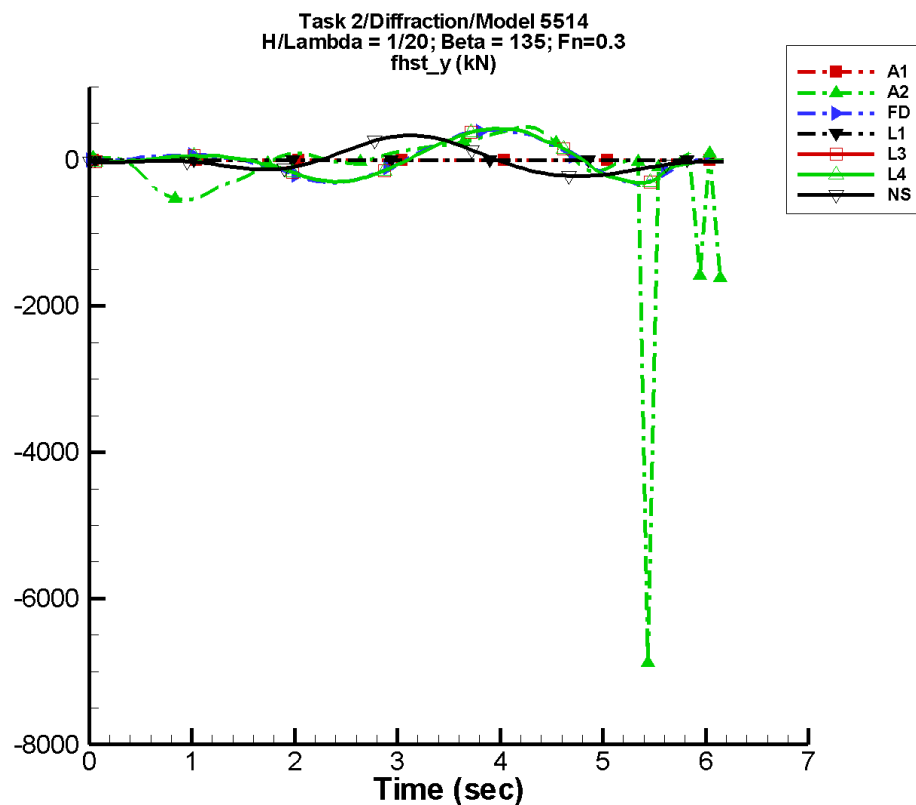
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-0.124	129.	54	63.4	-54
FD	0.158	2.29	-159	44.8	-56
L1	—	—	—	—	—
L3	-1.35E-02	2.85	-151	44.5	-34
L4	-1.35E-02	2.85	-151	44.5	-34
NF	—	—	—	—	—
NS	-0.207	3.19	-108	38.3	-12

Table H-706. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-184.	189.	-166.	168.
FD	-56.4	47.3	-46.0	42.7
L1	—	—	—	—
L3	-46.0	47.9	-44.4	46.7
L4	-46.0	47.9	-44.4	46.7
NF	—	—	—	—
NS	-40.6	41.5	-39.1	39.8



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-354. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

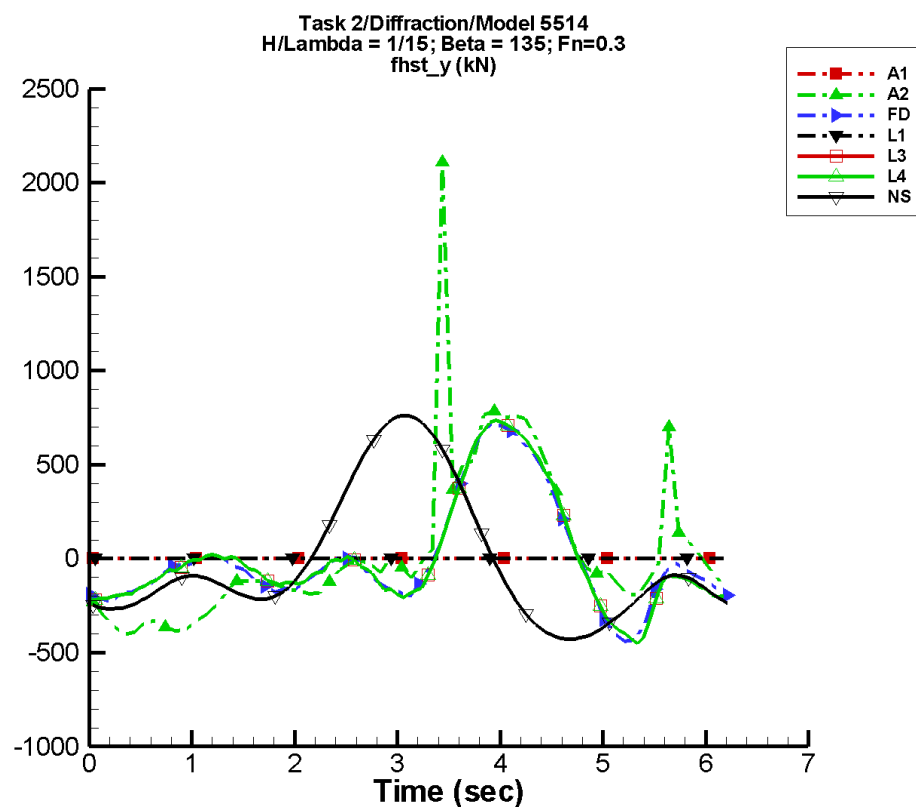
Table H-707. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-157.	394.	-104	239.	-3
FD	0.464	124.	-170	249.	-48
L1	—	—	—	—	—
L3	-5.52	131.	-155	233.	-25
L4	-5.52	131.	-155	233.	-25
NF	—	—	—	—	—
NS	-7.46	138.	-71	153.	79

Table H-708. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-6.88E+03	454.	-1.05E+03	356.
FD	-319.	425.	-266.	377.
L1	—	—	—	—
L3	-313.	427.	-283.	413.
L4	-313.	427.	-283.	413.
NF	—	—	—	—
NS	-222.	336.	-215.	323.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-355. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

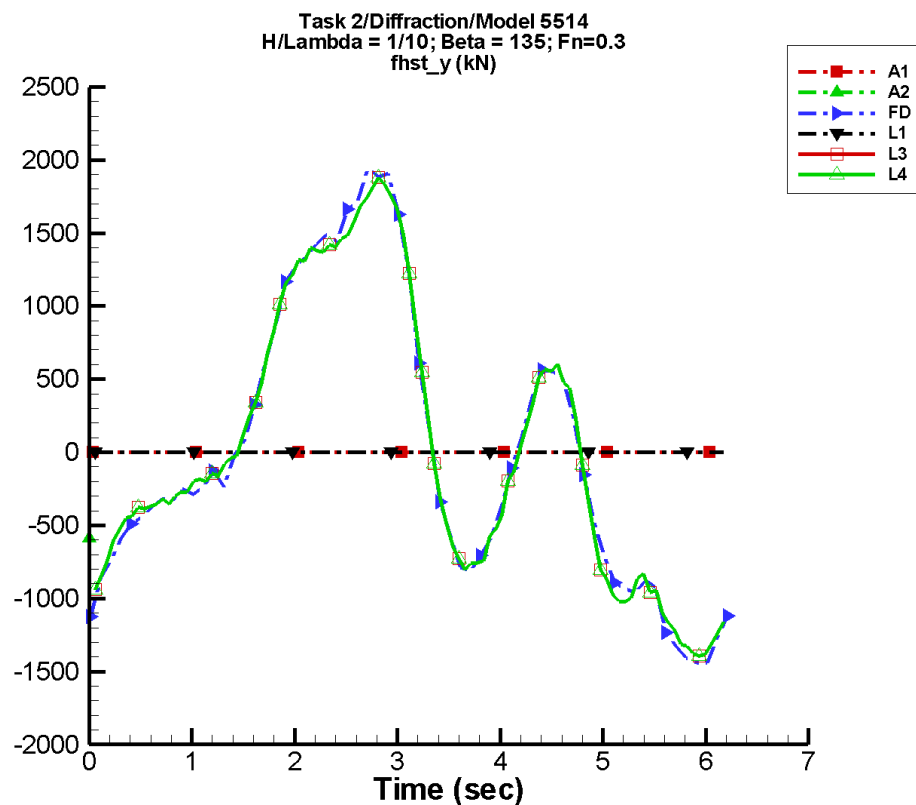
Table H-709. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	30.6	436.	-146	121.	-15
FD	5.51	243.	-154	246.	-69
L1	—	—	—	—	—
L3	-4.89	236.	-136	245.	-42
L4	-4.89	236.	-136	245.	-42
NF	—	—	—	—	—
NS	-19.4	364.	-74	260.	92

Table H-710. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-403.	2.11E+03	-368.	741.
FD	-440.	716.	-282.	621.
L1	—	—	—	—
L3	-451.	737.	-374.	697.
L4	-451.	737.	-374.	697.
NF	—	—	—	—
NS	-430.	762.	-422.	745.

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-356. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

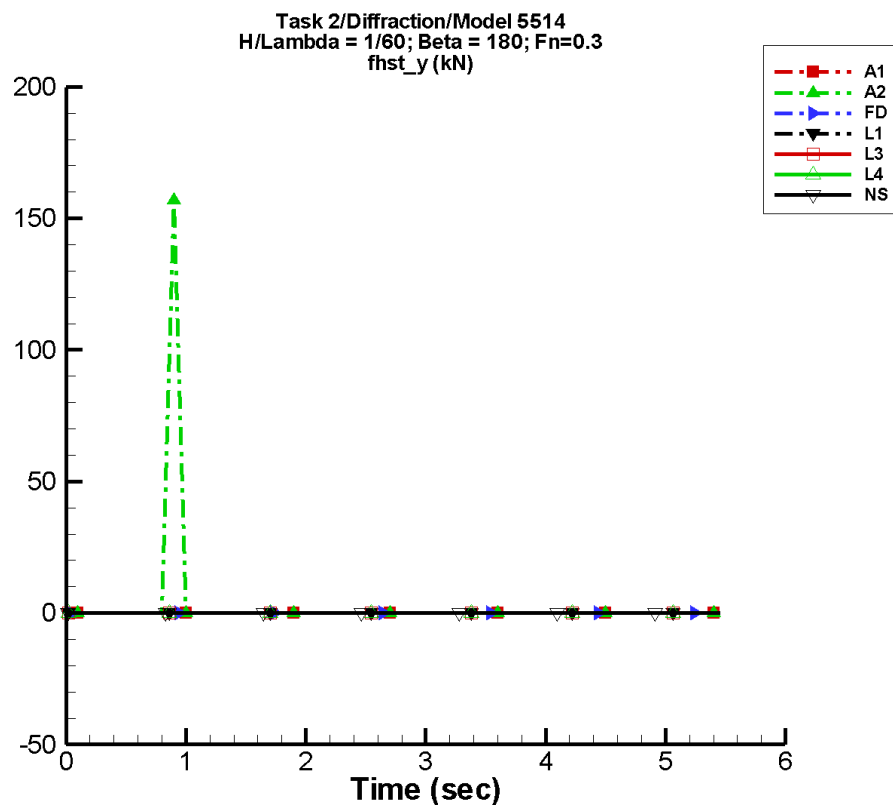
Table H-711. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-729.	706.	-168	448.	-74
FD	42.0	1.04E+03	-82	426.	151
L1	—	—	—	—	—
L3	31.7	1.06E+03	-66	292.	-179
L4	31.7	1.06E+03	-66	292.	-179
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-712. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-587.	-441.	-587.	-441.
FD	-1.44E+03	1.94E+03	-1.26E+03	1.72E+03
L1	—	—	—	—
L3	-1.39E+03	1.88E+03	-1.32E+03	1.74E+03
L4	-1.39E+03	1.88E+03	-1.32E+03	1.74E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-357. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-713. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

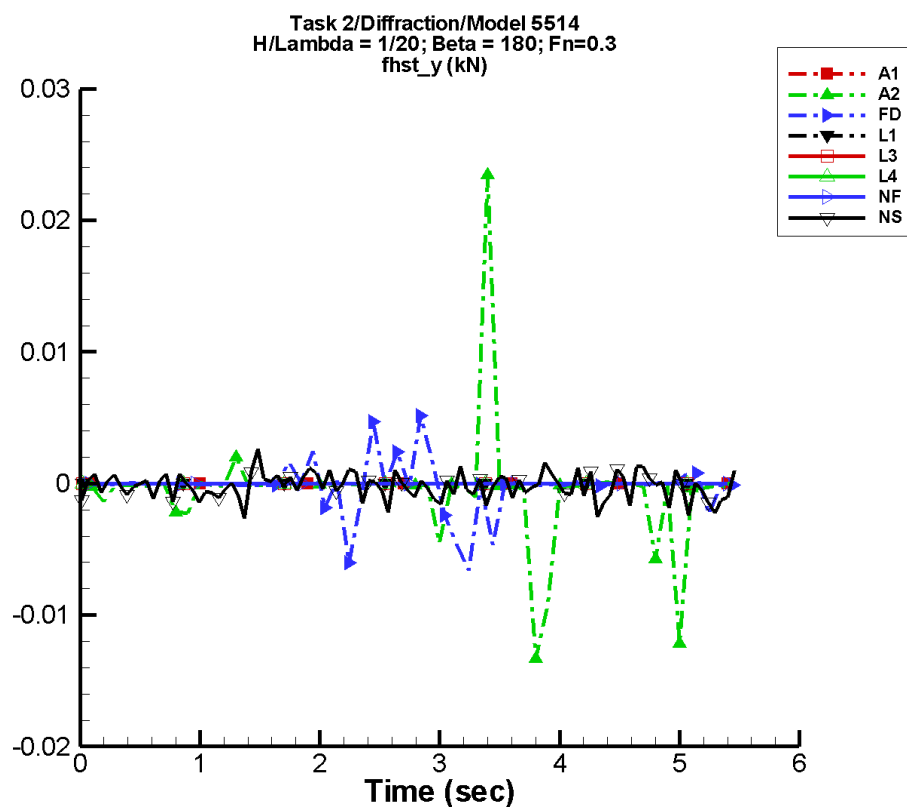
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.91	4.06	28	4.61	-30
FD	3.16E-04	6.46E-04	129	6.83E-04	148
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.64E-05	2.56E-04	-5	7.88E-05	40

Table H-714. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-5.26E-04	157.	-1.79	20.9
FD	-1.76E-03	2.87E-03	-5.24E-04	1.94E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.62E-03	1.64E-03	-7.11E-04	5.83E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-358. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

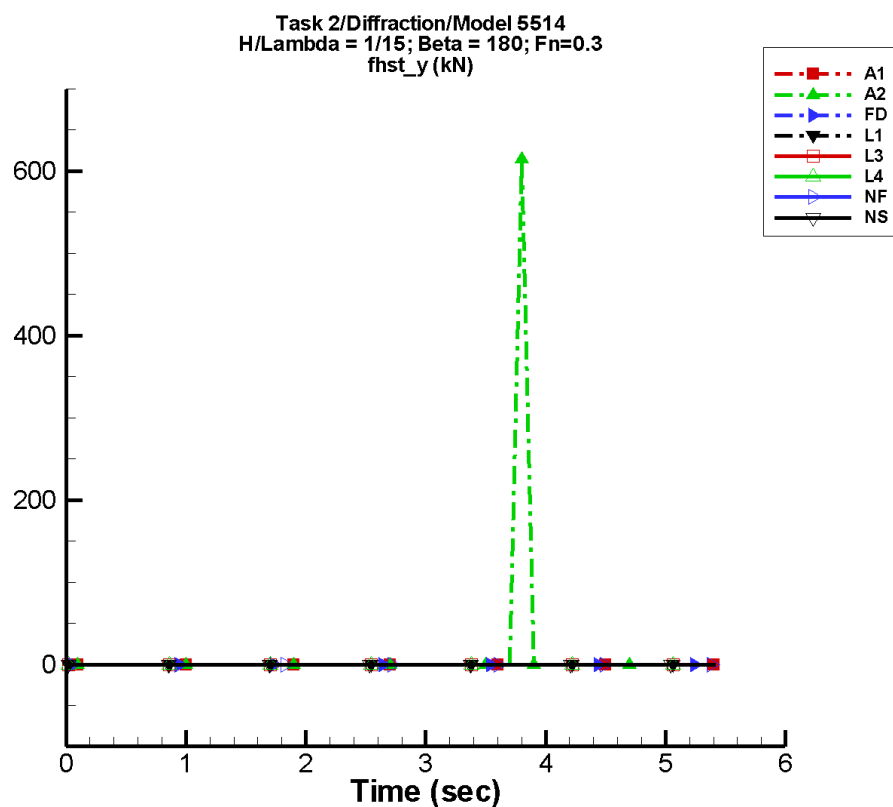
Table H-715. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.13E-04	1.01E-03	-43	8.82E-04	35
FD	4.30E-06	6.36E-04	80	1.04E-03	-17
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.76E-04	1.25E-04	-21	1.10E-04	-102

Table H-716. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.33E-02	2.35E-02	-2.33E-03	1.63E-03
FD	-8.83E-03	1.14E-02	-3.22E-03	3.97E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.66E-03	2.64E-03	-9.86E-04	7.01E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-359. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

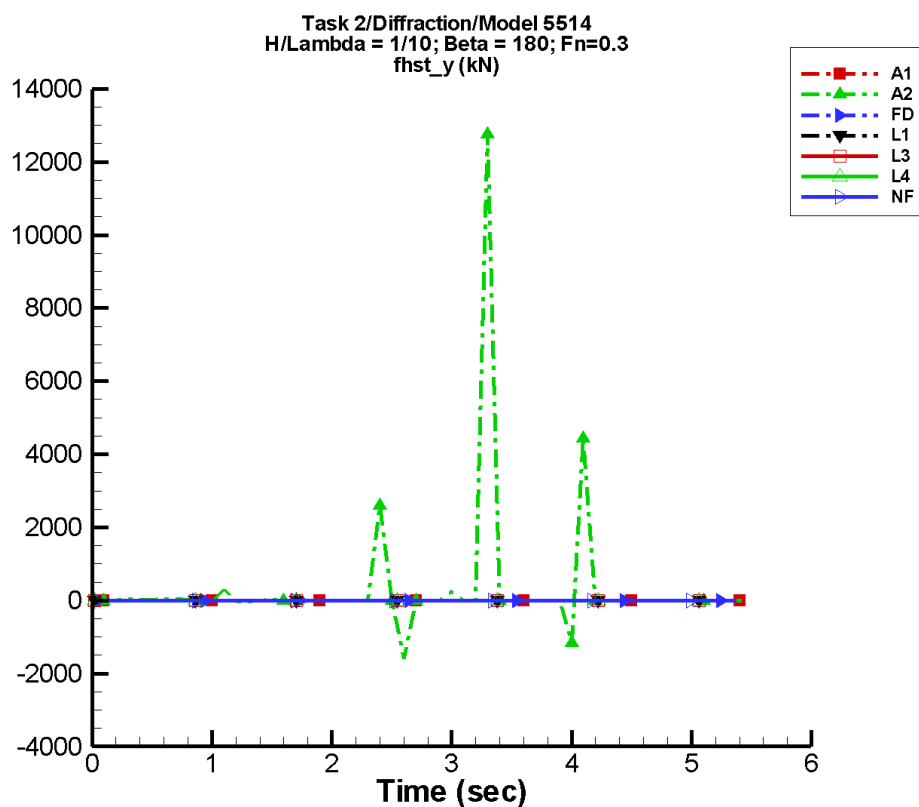
Table H-717. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	11.4	22.5	-156	21.5	-37
FD	4.40E-05	2.16E-03	83	2.98E-03	-19
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-6.77E-05	3.67E-04	23	1.88E-04	139

Table H-718. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-2.50	615.	-7.02	81.6
FD	-2.52E-02	2.18E-02	-5.64E-03	6.15E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.47E-03	3.92E-03	-1.31E-03	1.01E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-360. Time history of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

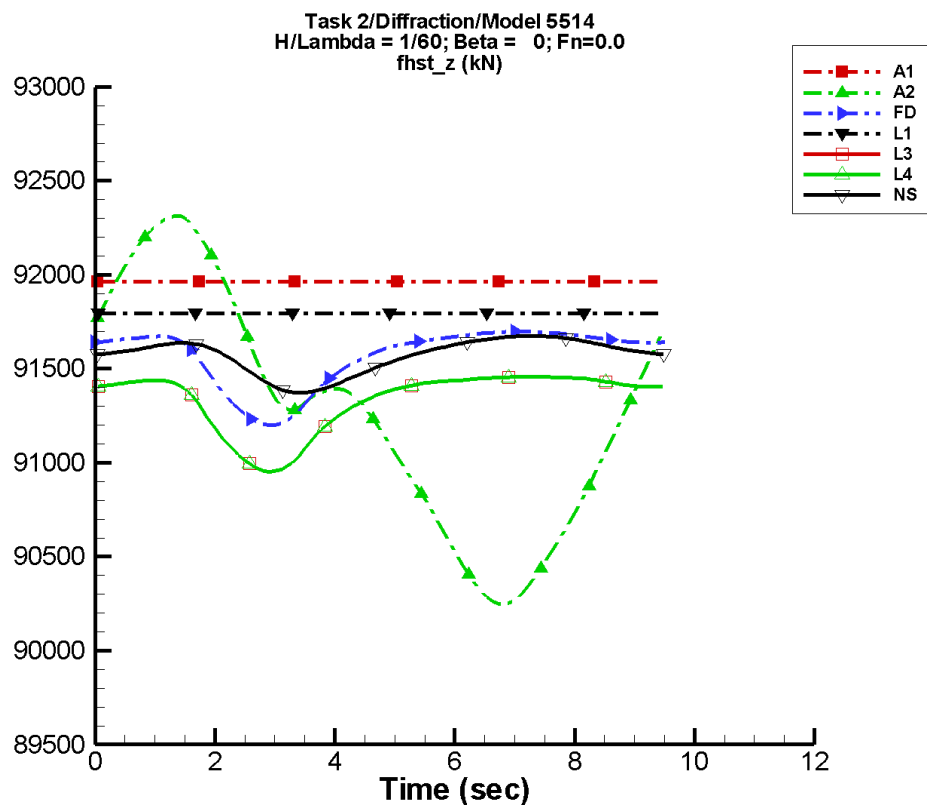
Table H-719. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	313.	561.	-126	388.	15
FD	3.36E-03	5.84E-03	29	4.75E-03	13
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-720. Minimum and maximum of  $F_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	—	—	—	—
A2	-1.59E+03	1.27E+04	-58.7	1.65E+03
FD	-3.21E-02	5.15E-02	-6.41E-03	1.66E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-361. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-721. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

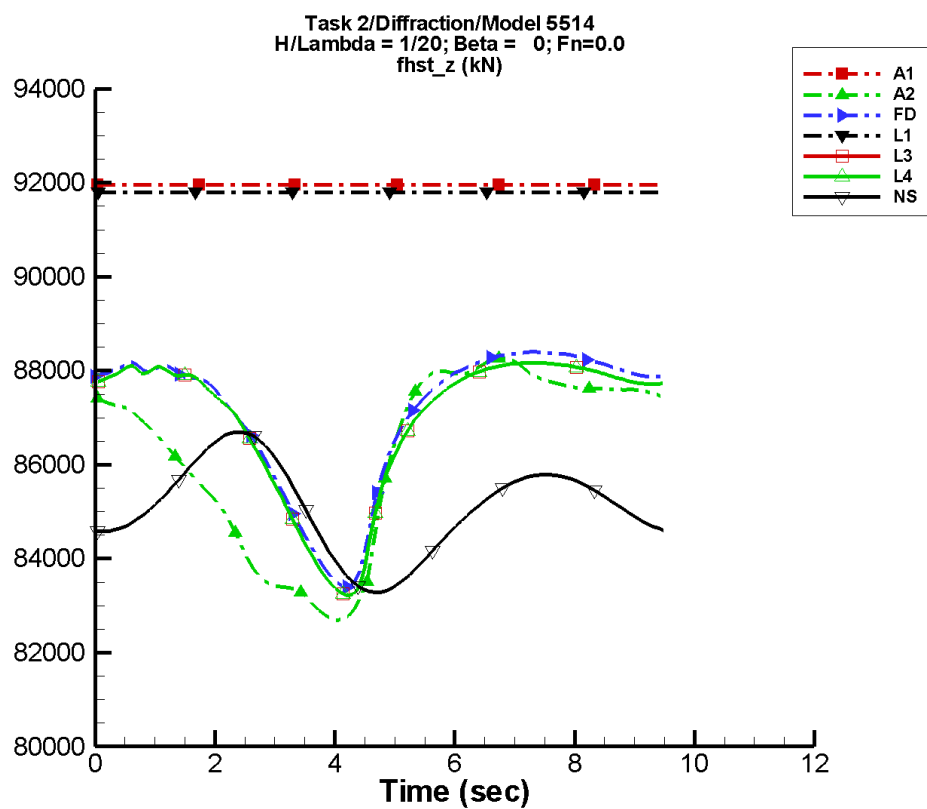
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	846.	22	245.	42
FD	9.16E+04	174.	152	118.	25
L1	9.18E+04	9.29E-02	31	4.29E-02	-29
L3	9.13E+04	182.	153	122.	27
L4	9.13E+04	182.	153	122.	27
NF	—	—	—	—	—
NS	9.16E+04	98.4	142	71.8	-28

Table H-722. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.02E+04	9.23E+04	9.03E+04	9.23E+04
FD	9.12E+04	9.17E+04	9.12E+04	9.17E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.10E+04	9.15E+04	9.10E+04	9.15E+04
L4	9.10E+04	9.15E+04	9.10E+04	9.15E+04
NF	—	—	—	—
NS	9.14E+04	9.17E+04	9.14E+04	9.17E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-362. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

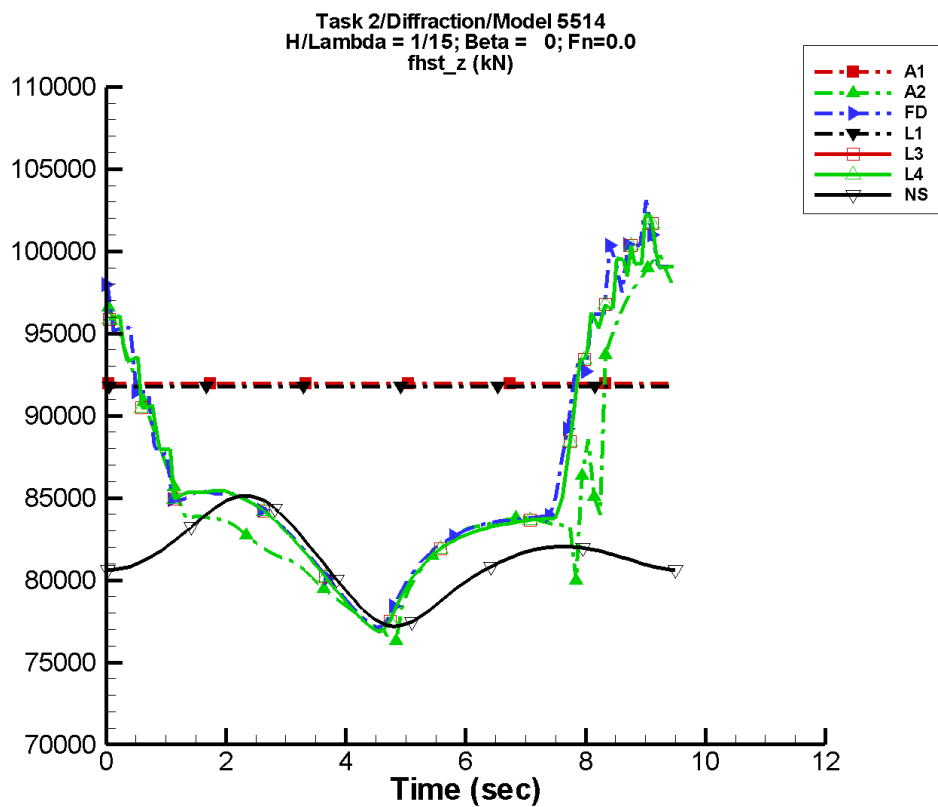
Table H-723. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.62E+04	2.34E+03	147	1.05E+03	-9
FD	8.71E+04	1.72E+03	121	1.14E+03	-46
L1	9.18E+04	9.29E-02	31	4.29E-02	-29
L3	8.70E+04	1.66E+03	120	1.12E+03	-42
L4	8.70E+04	1.66E+03	120	1.12E+03	-42
NF	—	—	—	—	—
NS	8.51E+04	613.	63	1.14E+03	-96

Table H-724. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.27E+04	8.83E+04	8.28E+04	8.82E+04
FD	8.34E+04	8.84E+04	8.35E+04	8.84E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.32E+04	8.82E+04	8.33E+04	8.82E+04
L4	8.32E+04	8.82E+04	8.33E+04	8.82E+04
NF	—	—	—	—
NS	8.33E+04	8.67E+04	8.33E+04	8.67E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-363. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

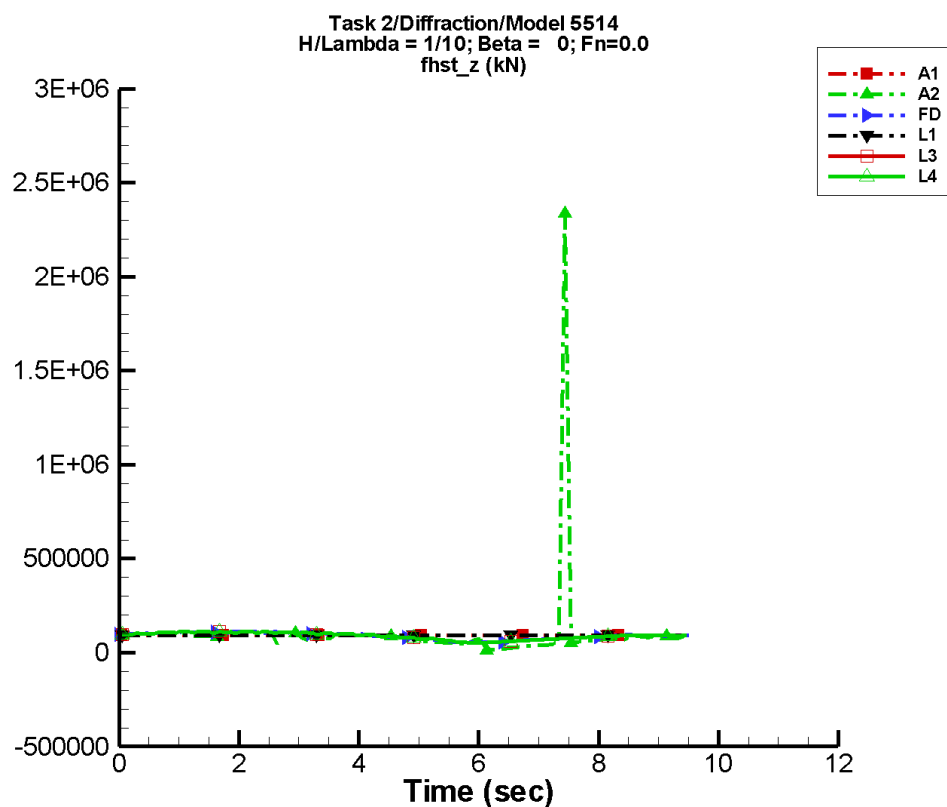
Table H-725. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.49E+04	7.48E+03	100	2.76E+03	98
FD	8.65E+04	8.55E+03	100	2.69E+03	140
L1	9.18E+04	9.29E-02	31	4.29E-02	-29
L3	8.64E+04	8.32E+03	99	2.74E+03	140
L4	8.64E+04	8.32E+03	99	2.74E+03	140
NF	—	—	—	—	—
NS	8.12E+04	1.83E+03	48	2.27E+03	-96

Table H-726. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.62E+04	9.98E+04	7.72E+04	9.87E+04
FD	7.72E+04	1.03E+05	7.78E+04	1.00E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.69E+04	1.02E+05	7.72E+04	1.00E+05
L4	7.69E+04	1.02E+05	7.72E+04	1.00E+05
NF	—	—	—	—
NS	7.72E+04	8.51E+04	7.73E+04	8.51E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-364. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

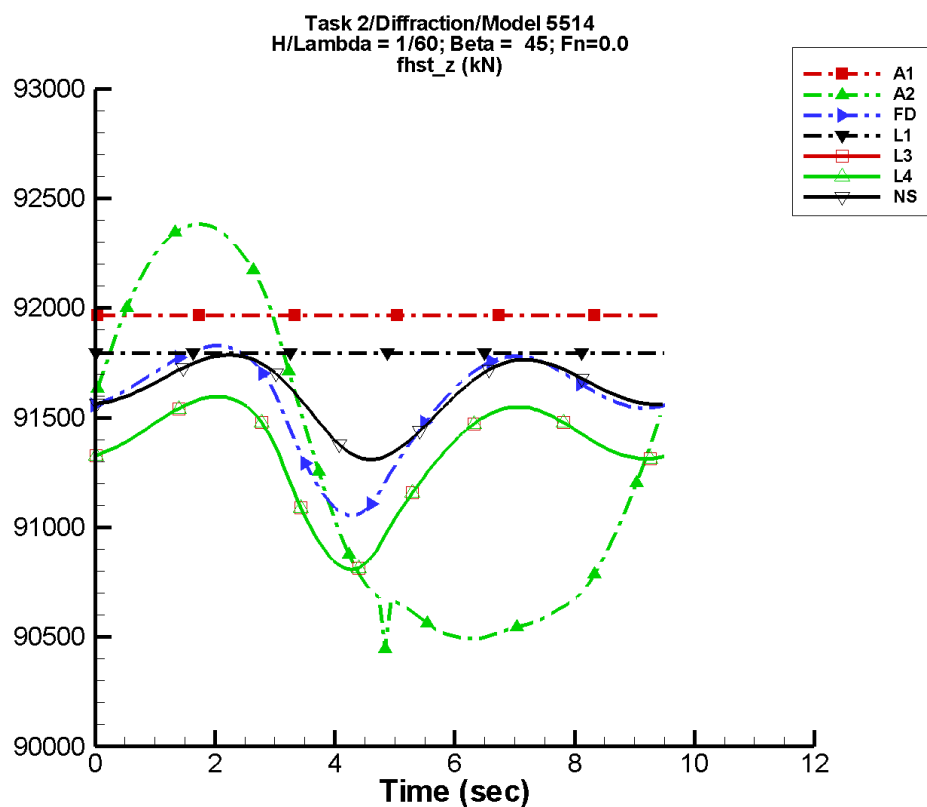
Table H-727. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	1.02E+05	3.03E+04	124	4.00E+04	-132
FD	8.87E+04	2.36E+04	24	5.35E+03	173
L1	9.18E+04	9.29E-02	31	4.29E-02	-29
L3	8.84E+04	2.38E+04	25	5.33E+03	173
L4	8.84E+04	2.38E+04	25	5.33E+03	173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-728. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	1.30E+04	2.34E+06	655.	3.59E+05
FD	5.36E+04	1.17E+05	5.56E+04	1.10E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	5.31E+04	1.13E+05	5.38E+04	1.10E+05
L4	5.31E+04	1.13E+05	5.38E+04	1.10E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-365. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-729. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

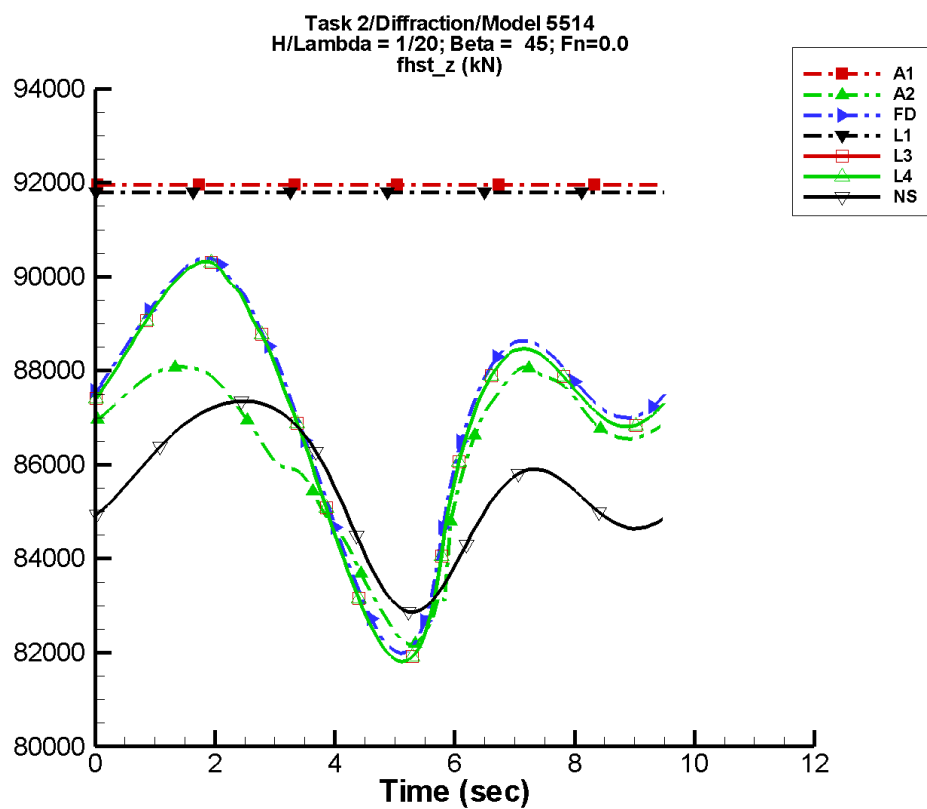
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	960.	23	205.	-51
FD	9.16E+04	184.	95	256.	-74
L1	9.18E+04	7.24E-02	79	5.42E-02	21
L3	9.13E+04	187.	99	246.	-69
L4	9.13E+04	187.	99	246.	-69
NF	—	—	—	—	—
NS	9.16E+04	99.4	90	167.	-83

Table H-730. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.04E+04	9.24E+04	9.05E+04	9.24E+04
FD	9.11E+04	9.18E+04	9.11E+04	9.18E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.08E+04	9.16E+04	9.08E+04	9.16E+04
L4	9.08E+04	9.16E+04	9.08E+04	9.16E+04
NF	—	—	—	—
NS	9.13E+04	9.18E+04	9.13E+04	9.18E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-366. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

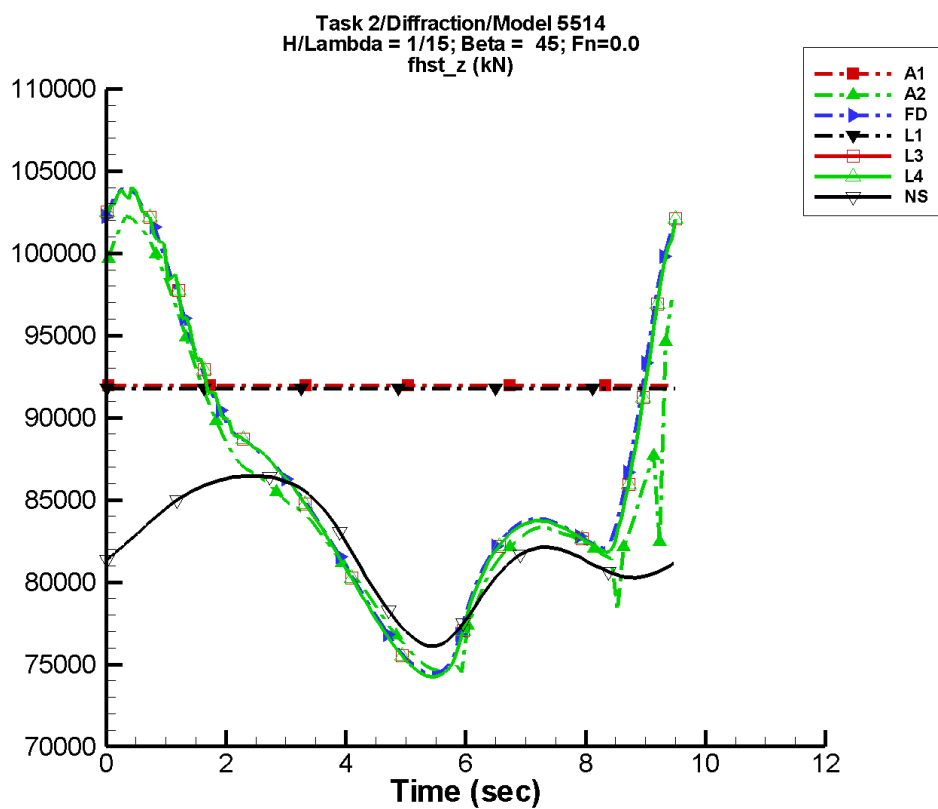
Table H-731. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.63E+04	1.98E+03	81	1.39E+03	-96
FD	8.72E+04	2.44E+03	63	2.11E+03	-92
L1	9.18E+04	7.24E-02	79	5.42E-02	21
L3	8.70E+04	2.54E+03	65	2.20E+03	-87
L4	8.70E+04	2.54E+03	65	2.20E+03	-87
NF	—	—	—	—	—
NS	8.54E+04	1.27E+03	30	1.19E+03	-105

Table H-732. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.22E+04	8.81E+04	8.23E+04	8.80E+04
FD	8.20E+04	9.04E+04	8.22E+04	9.03E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.18E+04	9.03E+04	8.19E+04	9.03E+04
L4	8.18E+04	9.03E+04	8.19E+04	9.03E+04
NF	—	—	—	—
NS	8.29E+04	8.74E+04	8.30E+04	8.73E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-367. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

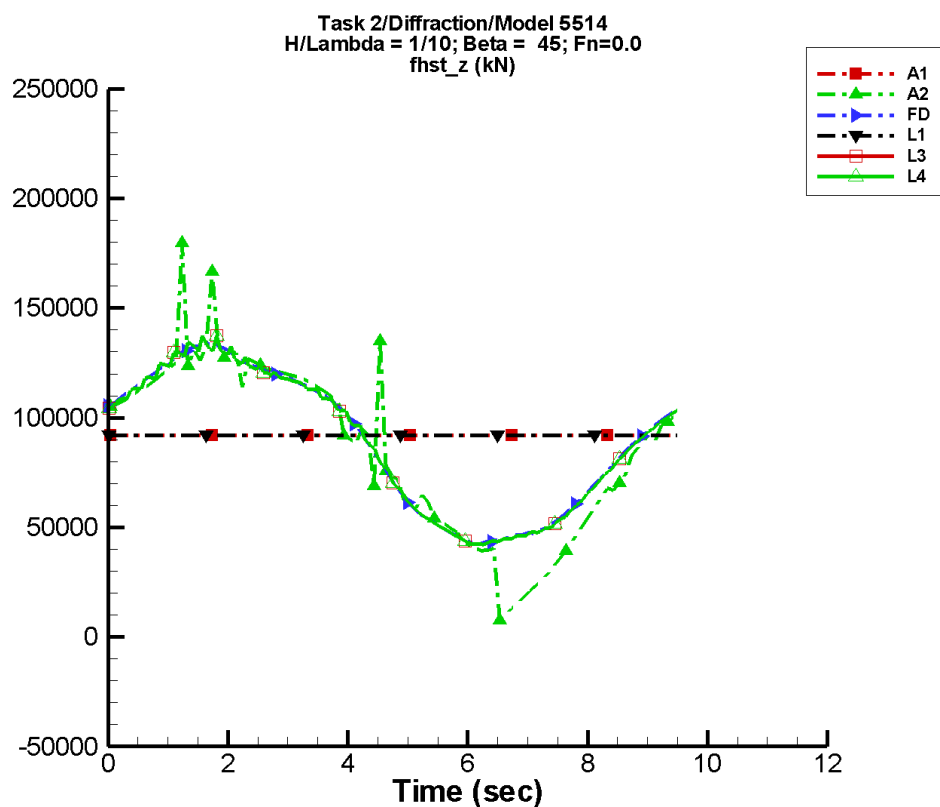
Table H-733. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.53E+04	9.77E+03	57	2.93E+03	24
FD	8.67E+04	1.09E+04	59	2.55E+03	44
L1	9.18E+04	7.24E-02	79	5.42E-02	21
L3	8.65E+04	1.12E+04	62	2.74E+03	34
L4	8.65E+04	1.12E+04	62	2.74E+03	34
NF	—	—	—	—	—
NS	8.20E+04	3.44E+03	27	2.27E+03	-106

Table H-734. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.45E+04	1.02E+05	7.49E+04	1.02E+05
FD	7.44E+04	1.04E+05	7.48E+04	1.04E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.42E+04	1.04E+05	7.43E+04	1.03E+05
L4	7.42E+04	1.04E+05	7.43E+04	1.03E+05
NF	—	—	—	—
NS	7.61E+04	8.65E+04	7.63E+04	8.65E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-368. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

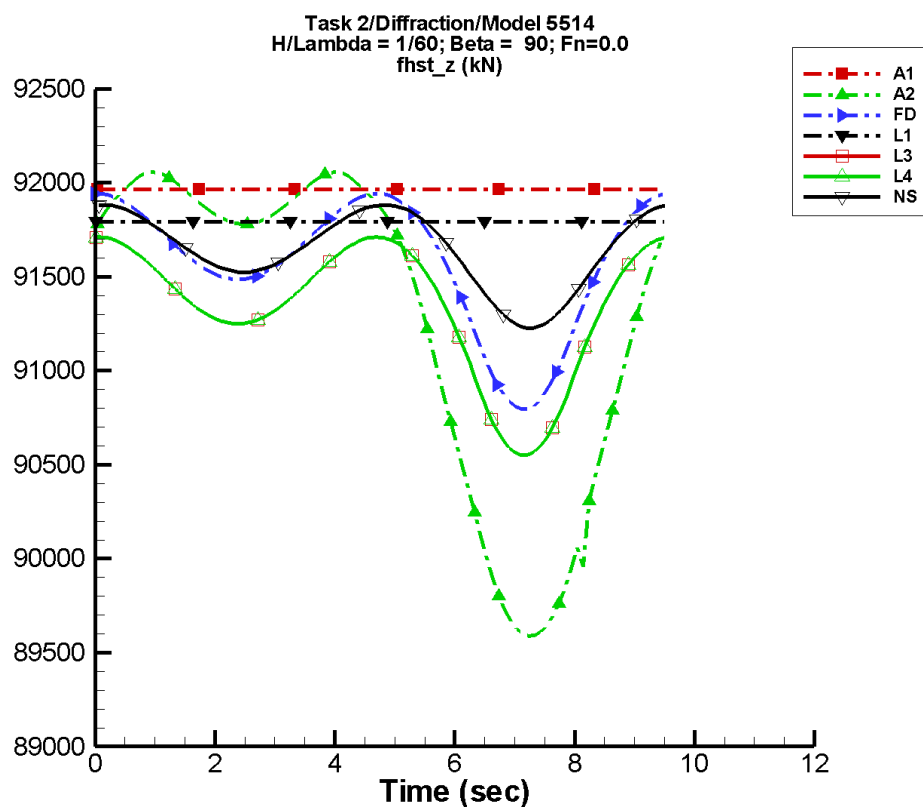
Table H-735. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.44E+04	5.08E+04	15	6.78E+03	108
FD	8.87E+04	4.36E+04	17	3.26E+03	154
L1	9.18E+04	7.24E-02	79	5.42E-02	21
L3	8.85E+04	4.41E+04	19	2.73E+03	167
L4	8.85E+04	4.41E+04	19	2.73E+03	167
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-736. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.78E+03	1.80E+05	1.91E+04	1.38E+05
FD	4.25E+04	1.34E+05	4.38E+04	1.32E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.20E+04	1.38E+05	4.28E+04	1.33E+05
L4	4.20E+04	1.38E+05	4.28E+04	1.33E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-369. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-737. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

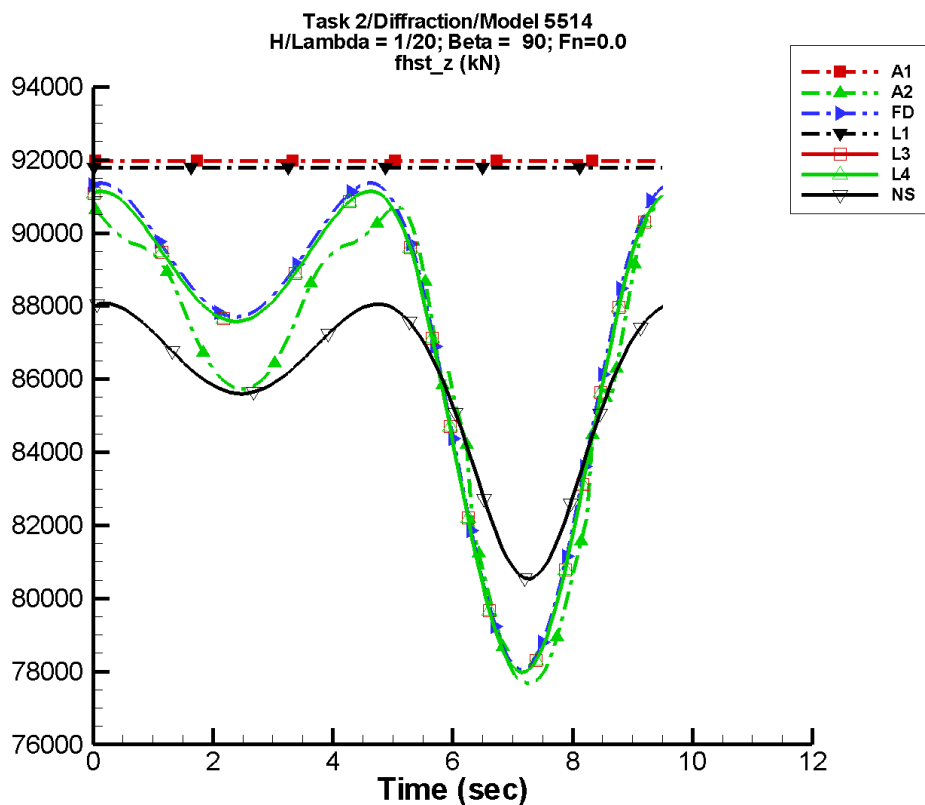
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	1.06E+03	-9	561.	72
FD	9.16E+04	251.	-6	380.	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	9.13E+04	265.	-6	400.	81
L4	9.13E+04	265.	-6	400.	81
NF	—	—	—	—	—
NS	9.16E+04	111.	-6	248.	83

Table H-738. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.96E+04	9.21E+04	8.96E+04	9.20E+04
FD	9.08E+04	9.19E+04	9.08E+04	9.19E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.06E+04	9.17E+04	9.06E+04	9.17E+04
L4	9.06E+04	9.17E+04	9.06E+04	9.17E+04
NF	—	—	—	—
NS	9.12E+04	9.19E+04	9.12E+04	9.19E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-370. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

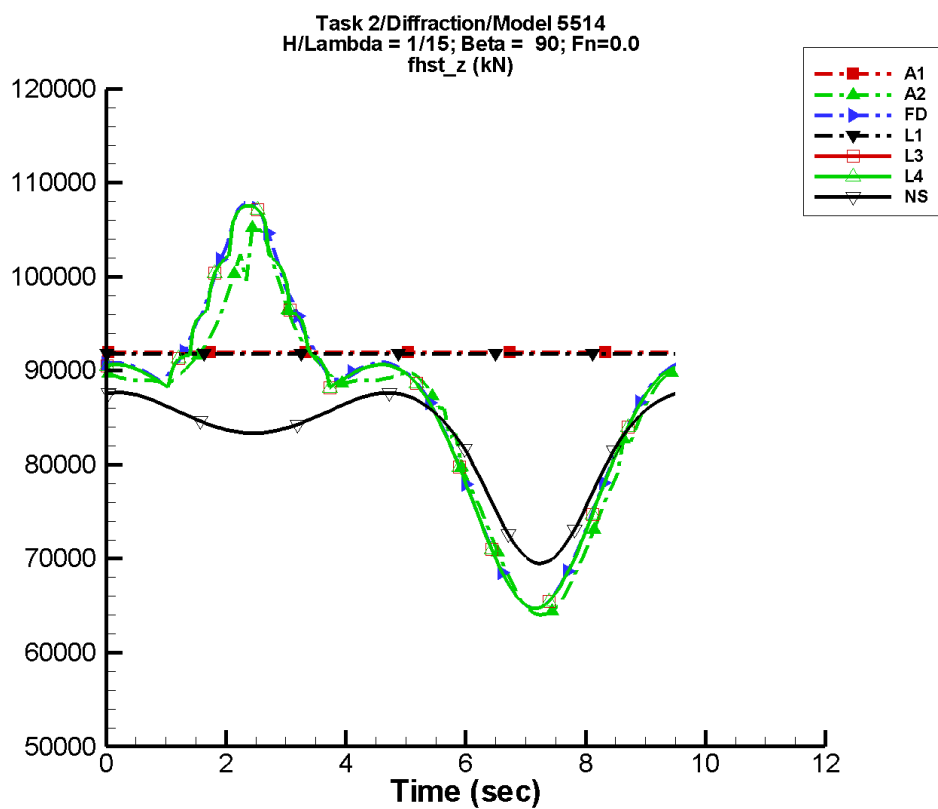
Table H-739. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.63E+04	3.37E+03	-12	4.26E+03	72
FD	8.71E+04	4.09E+03	-6	4.03E+03	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.69E+04	4.14E+03	-5	4.10E+03	81
L4	8.69E+04	4.14E+03	-5	4.10E+03	81
NF	—	—	—	—	—
NS	8.57E+04	1.91E+03	-6	2.40E+03	83

Table H-740. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.77E+04	9.07E+04	7.79E+04	9.05E+04
FD	7.81E+04	9.14E+04	7.84E+04	9.13E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.80E+04	9.11E+04	7.81E+04	9.11E+04
L4	7.80E+04	9.11E+04	7.81E+04	9.11E+04
NF	—	—	—	—
NS	8.05E+04	8.81E+04	8.08E+04	8.81E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-371. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

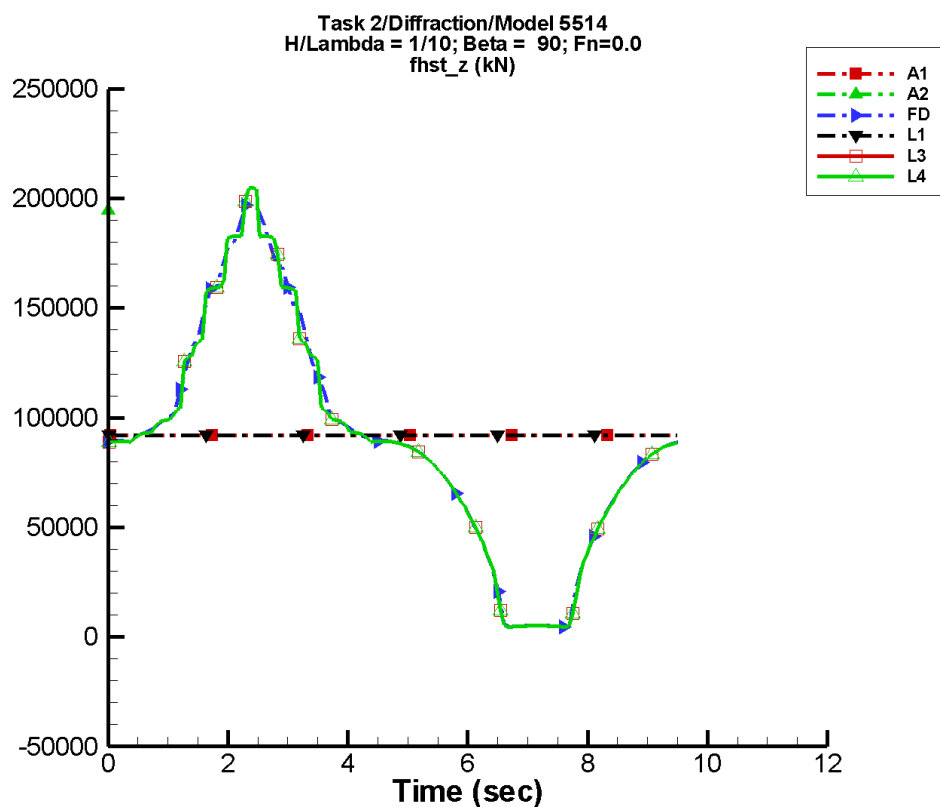
Table H-741. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.50E+04	1.31E+04	-11	3.31E+03	83
FD	8.62E+04	1.47E+04	-5	1.13E+03	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.60E+04	1.50E+04	-6	2.25E+03	68
L4	8.60E+04	1.50E+04	-6	2.25E+03	68
NF	—	—	—	—	—
NS	8.25E+04	5.12E+03	-5	5.35E+03	84

Table H-742. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	6.40E+04	1.05E+05	6.47E+04	1.02E+05
FD	6.48E+04	1.08E+05	6.54E+04	1.06E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	6.47E+04	1.08E+05	6.49E+04	1.07E+05
L4	6.47E+04	1.08E+05	6.49E+04	1.07E+05
NF	—	—	—	—
NS	6.95E+04	8.77E+04	6.98E+04	8.77E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-372. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

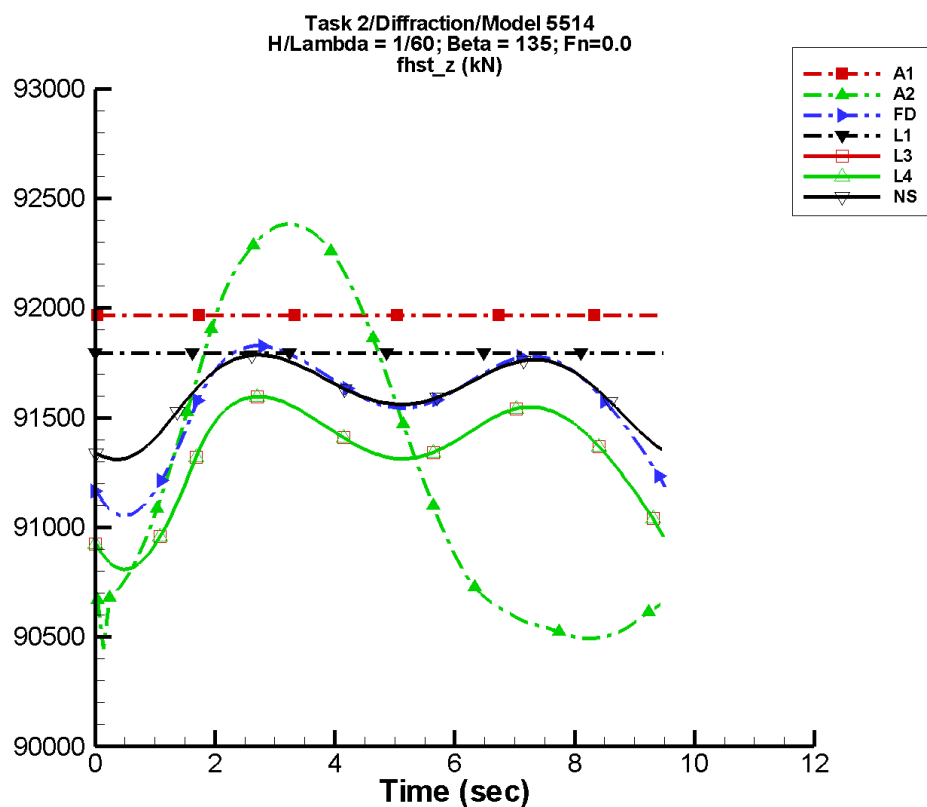
Table H-743. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	3.64E+04	4.47E+05	-66	1.59E+05	7
FD	8.71E+04	6.78E+04	-6	9.70E+03	-102
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.63E+04	6.98E+04	-6	5.98E+03	-64
L4	8.63E+04	6.98E+04	-6	5.98E+03	-64
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-744. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	1.88E+05	1.94E+05	1.88E+05	1.94E+05
FD	4.67E+03	1.97E+05	3.69E+03	1.88E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.57E+03	2.05E+05	4.44E+03	1.94E+05
L4	4.57E+03	2.05E+05	4.44E+03	1.94E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-373. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-745. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

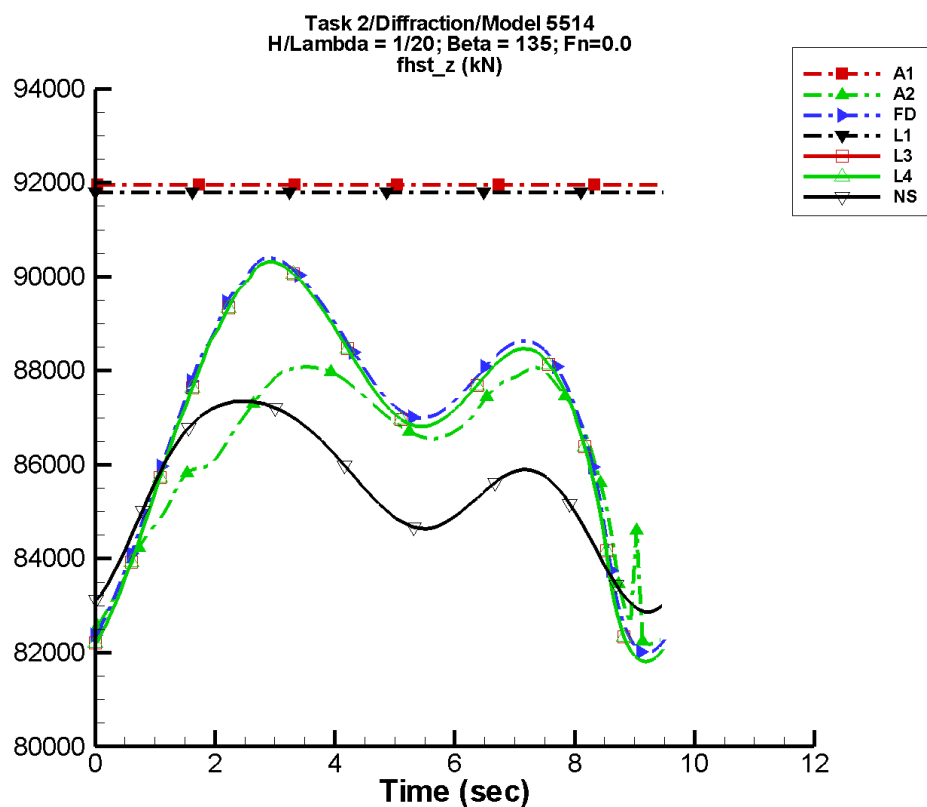
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	966.	-40	216.	-162
FD	9.16E+04	186.	-107	261.	-128
L1	9.18E+04	0.135	-5	4.44E-03	-176
L3	9.13E+04	193.	-105	264.	-124
L4	9.13E+04	193.	-105	264.	-124
NF	—	—	—	—	—
NS	9.16E+04	102.	-95	176.	-113

Table H-746. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.04E+04	9.24E+04	9.05E+04	9.24E+04
FD	9.11E+04	9.18E+04	9.11E+04	9.18E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.08E+04	9.16E+04	9.08E+04	9.16E+04
L4	9.08E+04	9.16E+04	9.08E+04	9.16E+04
NF	—	—	—	—
NS	9.13E+04	9.18E+04	9.13E+04	9.18E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-374. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

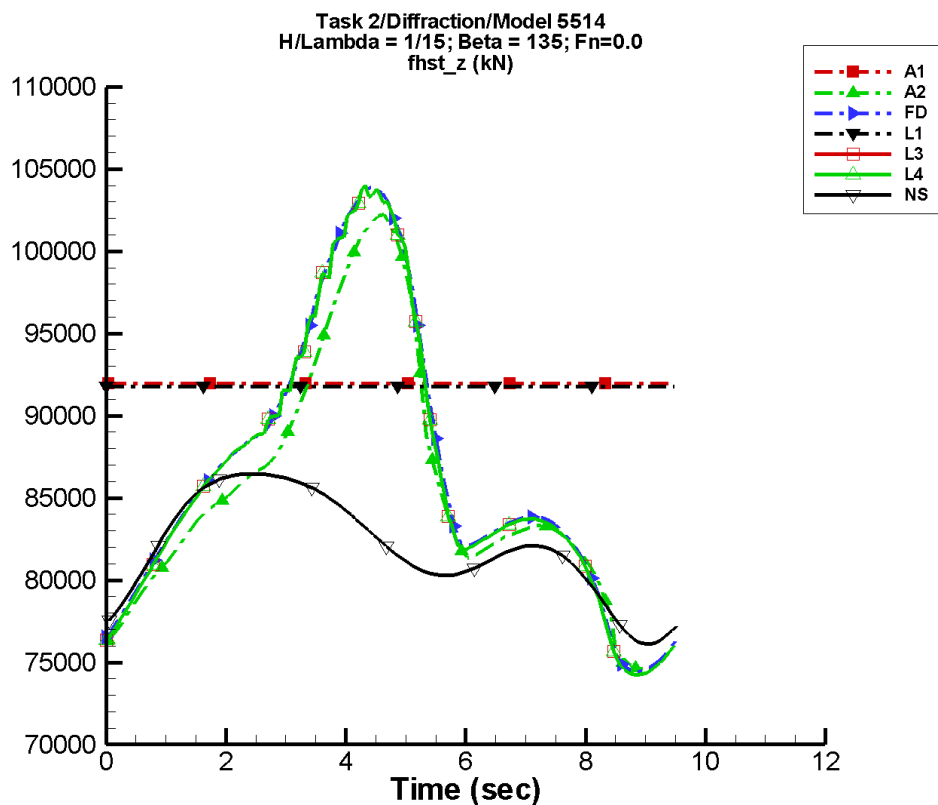
Table H-747. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.63E+04	1.80E+03	-98	1.37E+03	-117
FD	8.72E+04	2.42E+03	-74	2.13E+03	-110
L1	9.18E+04	0.135	-5	4.44E-03	-176
L3	8.70E+04	2.48E+03	-72	2.13E+03	-106
L4	8.70E+04	2.48E+03	-72	2.13E+03	-106
NF	—	—	—	—	—
NS	8.54E+04	1.27E+03	-34	1.26E+03	-88

Table H-748. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.22E+04	8.81E+04	8.26E+04	8.80E+04
FD	8.20E+04	9.04E+04	8.22E+04	9.03E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.18E+04	9.03E+04	8.19E+04	9.03E+04
L4	8.18E+04	9.03E+04	8.19E+04	9.03E+04
NF	—	—	—	—
NS	8.29E+04	8.74E+04	8.30E+04	8.73E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-375. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

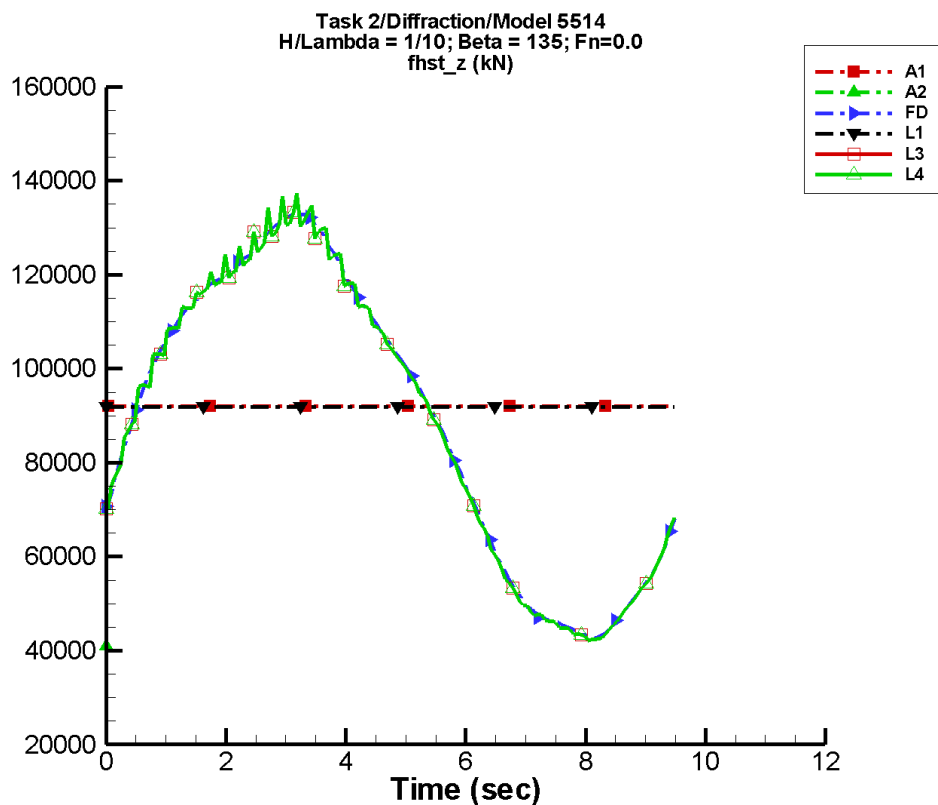
Table H-749. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.54E+04	9.55E+03	-72	2.15E+03	130
FD	8.66E+04	1.07E+04	-70	2.24E+03	119
L1	9.18E+04	0.135	-5	4.44E-03	-176
L3	8.64E+04	1.08E+04	-68	2.32E+03	125
L4	8.64E+04	1.08E+04	-68	2.32E+03	125
NF	—	—	—	—	—
NS	8.20E+04	3.42E+03	-30	2.40E+03	-83

Table H-750. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.46E+04	1.02E+05	7.48E+04	1.01E+05
FD	7.44E+04	1.04E+05	7.48E+04	1.03E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.42E+04	1.04E+05	7.43E+04	1.03E+05
L4	7.42E+04	1.04E+05	7.43E+04	1.03E+05
NF	—	—	—	—
NS	7.61E+04	8.65E+04	7.63E+04	8.64E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-376. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

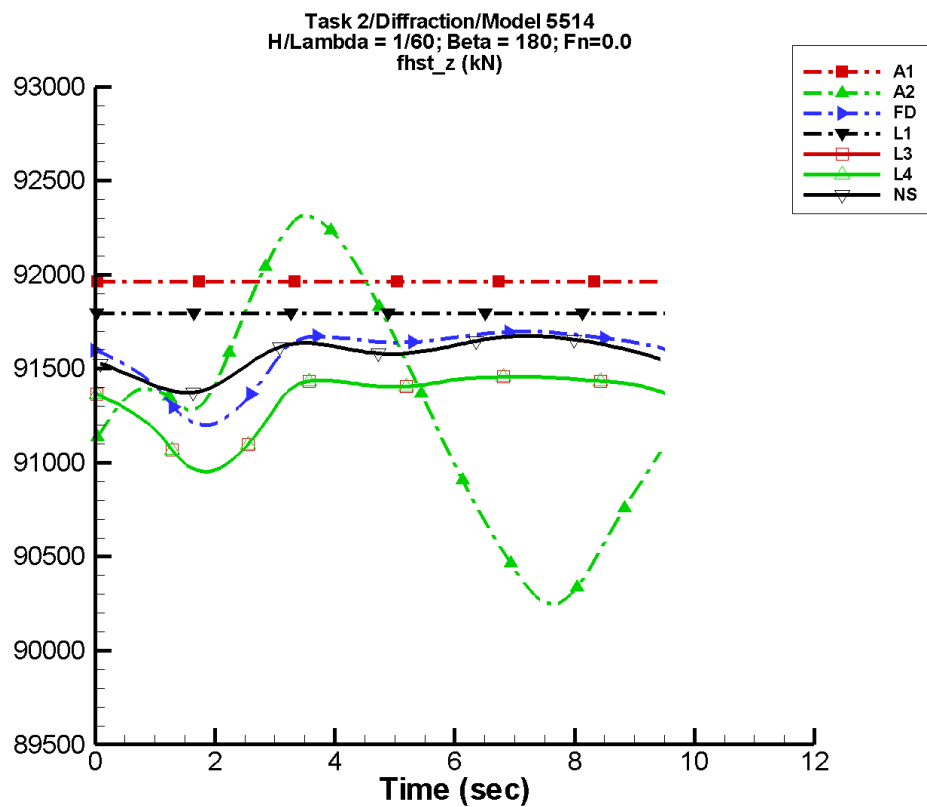
Table H-751. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	3.06E+05	1.08E+06	-136	6.08E+05	61
FD	8.88E+04	4.36E+04	-29	3.35E+03	7
L1	9.18E+04	0.135	-5	4.44E-03	-176
L3	8.86E+04	4.39E+04	-26	3.18E+03	11
L4	8.86E+04	4.39E+04	-26	3.18E+03	11
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-752. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	3.98E+04	4.10E+04	3.98E+04	4.10E+04
FD	4.24E+04	1.34E+05	4.38E+04	1.32E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.21E+04	1.37E+05	4.28E+04	1.33E+05
L4	4.21E+04	1.37E+05	4.28E+04	1.33E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-377. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-753. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

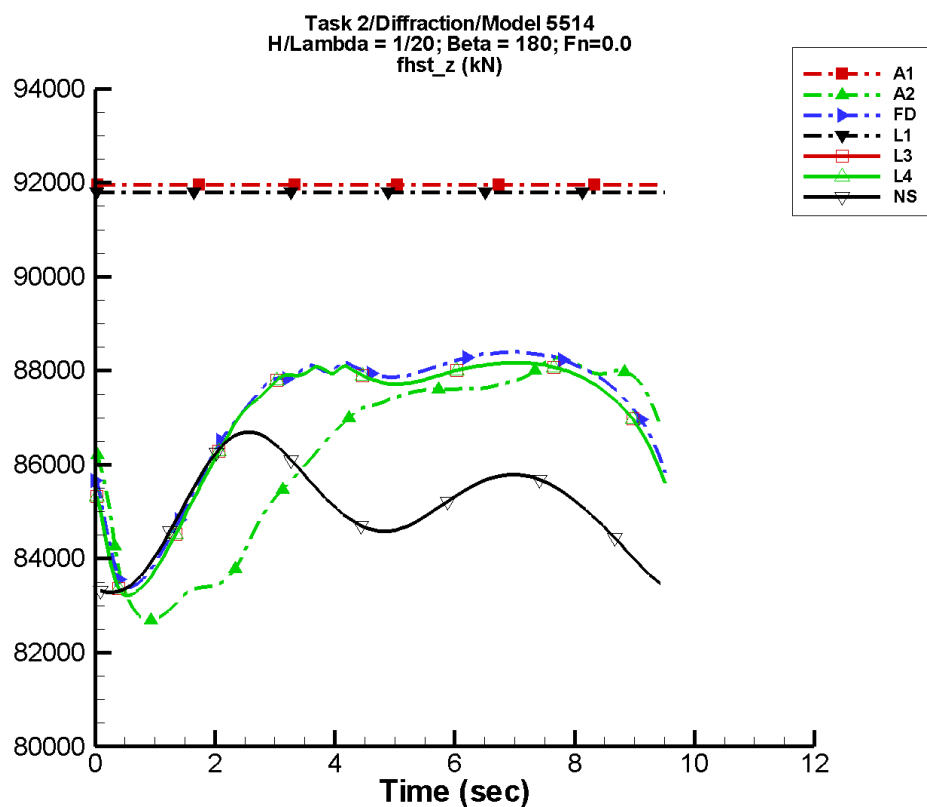
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	823.	-36	275.	103
FD	9.16E+04	173.	-163	123.	130
L1	9.18E+04	9.31E-02	40	4.57E-02	-40
L3	9.13E+04	182.	-164	120.	128
L4	9.13E+04	182.	-164	120.	128
NF	—	—	—	—	—
NS	9.16E+04	105.	-152	68.6	-178

Table H-754. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.02E+04	9.23E+04	9.03E+04	9.23E+04
FD	9.12E+04	9.17E+04	9.12E+04	9.17E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.10E+04	9.15E+04	9.10E+04	9.15E+04
L4	9.10E+04	9.15E+04	9.10E+04	9.15E+04
NF	—	—	—	—
NS	9.14E+04	9.17E+04	9.14E+04	9.17E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-378. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

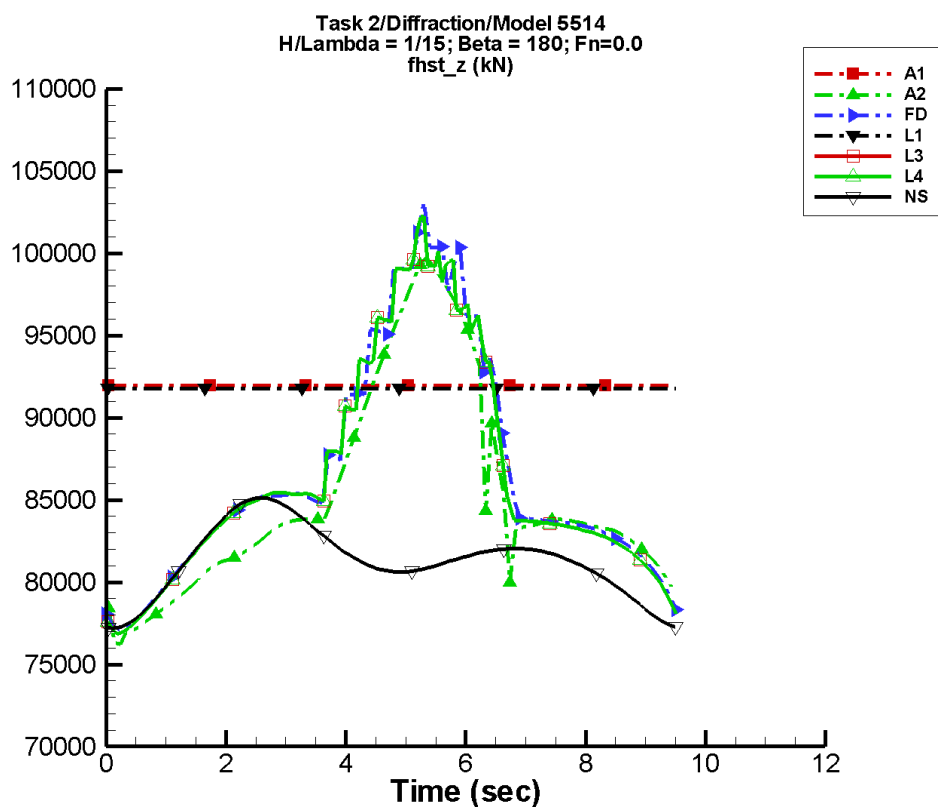
Table H-755. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.63E+04	2.33E+03	-164	1.09E+03	154
FD	8.71E+04	1.75E+03	-132	1.17E+03	-155
L1	9.18E+04	9.31E-02	40	4.57E-02	-40
L3	8.70E+04	1.76E+03	-126	1.23E+03	-154
L4	8.70E+04	1.76E+03	-126	1.23E+03	-154
NF	—	—	—	—	—
NS	8.51E+04	655.	-71	1.17E+03	-101

Table H-756. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.27E+04	8.83E+04	8.28E+04	8.82E+04
FD	8.34E+04	8.84E+04	8.36E+04	8.84E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.32E+04	8.82E+04	8.33E+04	8.82E+04
L4	8.32E+04	8.82E+04	8.33E+04	8.82E+04
NF	—	—	—	—
NS	8.33E+04	8.67E+04	8.33E+04	8.66E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-379. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

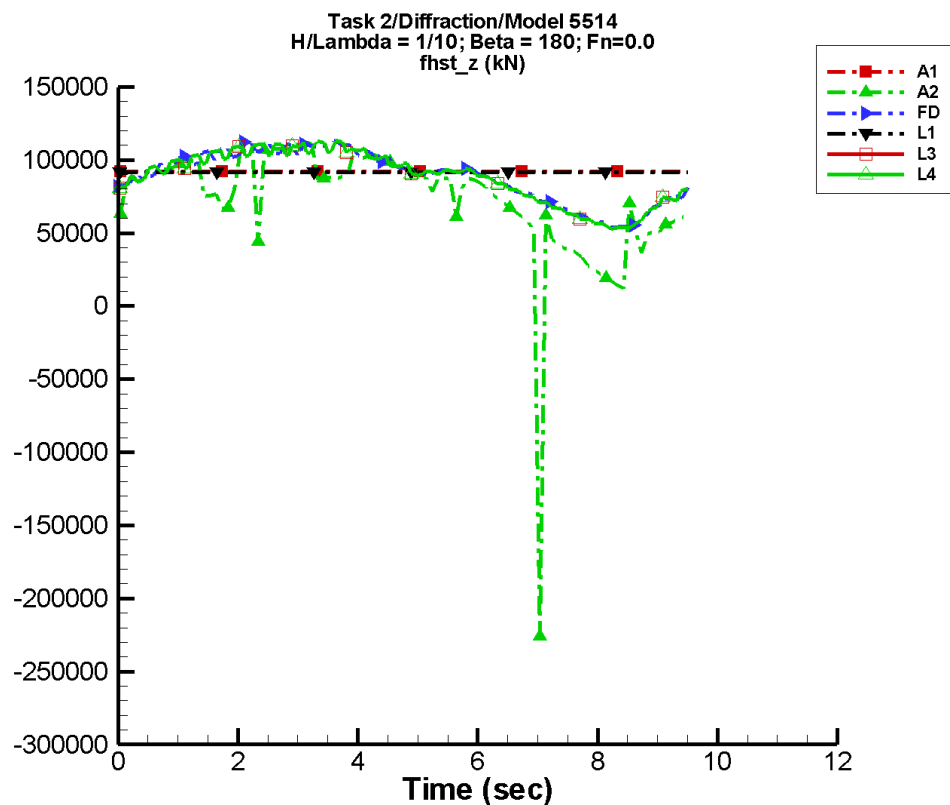
Table H-757. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.50E+04	8.01E+03	-115	2.24E+03	46
FD	8.64E+04	8.75E+03	-111	2.56E+03	15
L1	9.18E+04	9.31E-02	40	4.57E-02	-40
L3	8.63E+04	8.85E+03	-105	2.18E+03	27
L4	8.63E+04	8.85E+03	-105	2.18E+03	27
NF	—	—	—	—	—
NS	8.12E+04	1.90E+03	-55	2.32E+03	-98

Table H-758. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.62E+04	9.98E+04	7.72E+04	9.87E+04
FD	7.71E+04	1.03E+05	7.73E+04	1.00E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.69E+04	1.02E+05	7.72E+04	1.00E+05
L4	7.69E+04	1.02E+05	7.72E+04	1.00E+05
NF	—	—	—	—
NS	7.72E+04	8.51E+04	7.72E+04	8.50E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-380. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

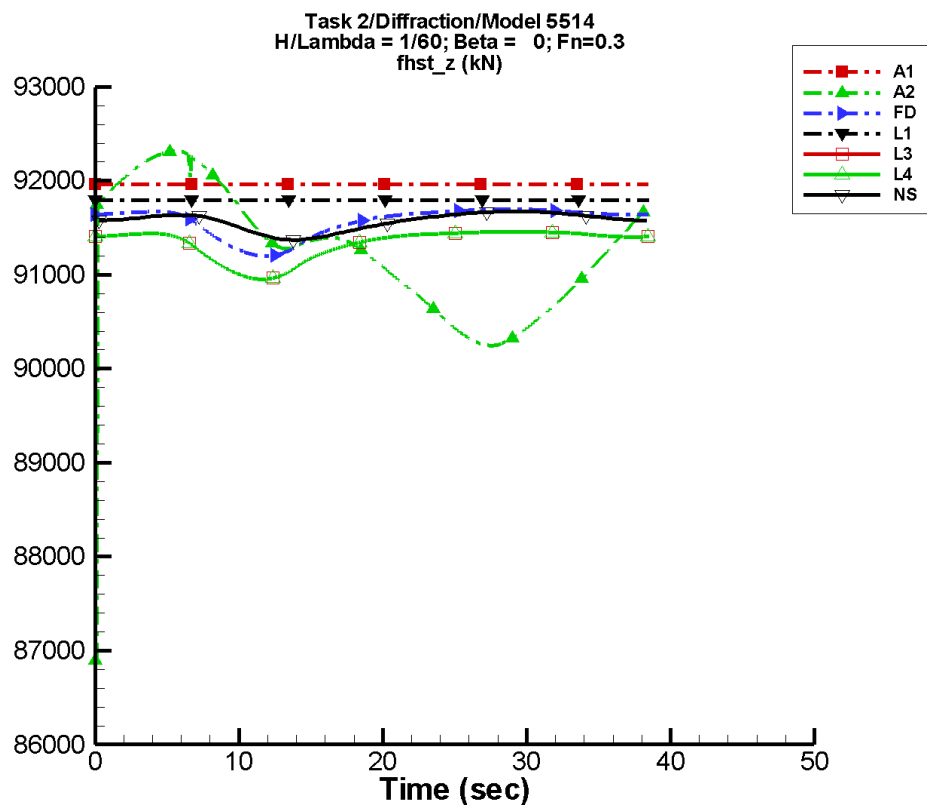
Table H-759. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	7.26E+04	3.38E+04	-31	1.60E+04	49
FD	8.89E+04	2.36E+04	-36	5.28E+03	-10
L1	9.18E+04	9.31E-02	40	4.57E-02	-40
L3	8.84E+04	2.33E+04	-32	5.93E+03	-4
L4	8.84E+04	2.33E+04	-32	5.93E+03	-4
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-760. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	-2.26E+05	1.12E+05	1.50E+04	1.06E+05
FD	5.36E+04	1.13E+05	5.56E+04	1.10E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	5.29E+04	1.13E+05	5.38E+04	1.10E+05
L4	5.29E+04	1.13E+05	5.38E+04	1.10E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-381. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-761. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

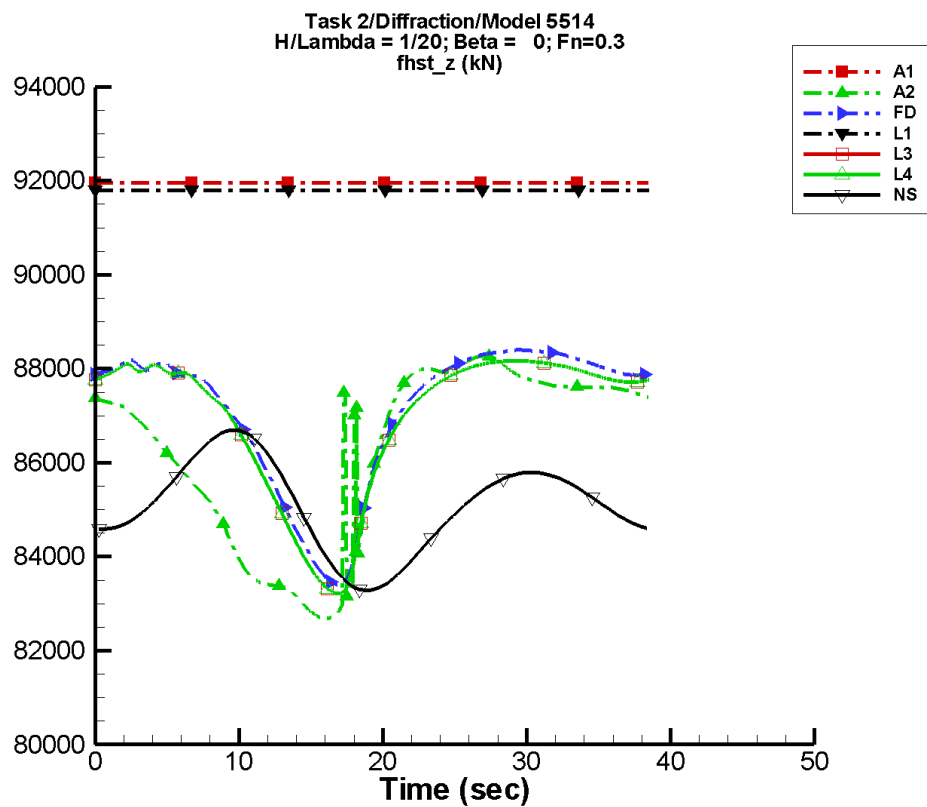
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.16E-02	105	2.50E-02	-39
A2	9.13E+04	846.	31	242.	62
FD	9.16E+04	177.	163	106.	54
L1	9.18E+04	1.10E-02	140	2.04E-02	-137
L3	9.13E+04	178.	162	109.	49
L4	9.13E+04	178.	162	109.	49
NF	—	—	—	—	—
NS	9.16E+04	98.4	143	71.8	-25

Table H-762. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.02E+04	9.23E+04	9.02E+04	9.23E+04
FD	9.12E+04	9.17E+04	9.12E+04	9.17E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.10E+04	9.15E+04	9.10E+04	9.15E+04
L4	9.10E+04	9.15E+04	9.10E+04	9.15E+04
NF	—	—	—	—
NS	9.14E+04	9.17E+04	9.14E+04	9.17E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-382. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

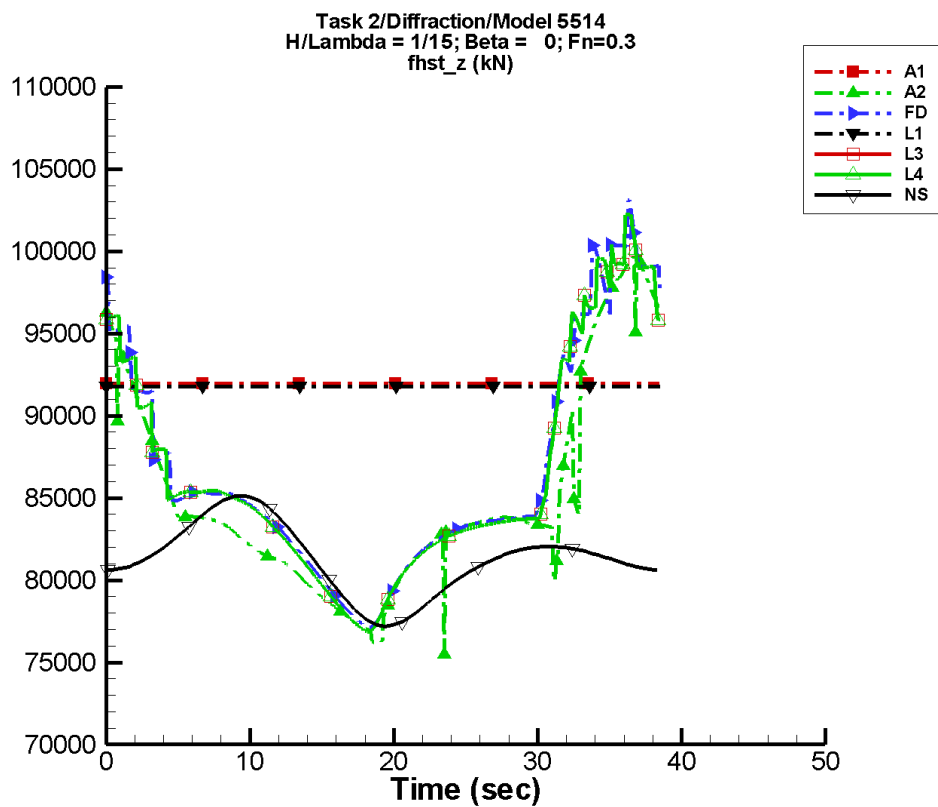
Table H-763. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.16E-02	105	2.50E-02	-39
A2	8.63E+04	2.27E+03	162	1.03E+03	20
FD	8.71E+04	1.69E+03	135	1.11E+03	-15
L1	9.18E+04	1.10E-02	140	2.04E-02	-137
L3	8.70E+04	1.71E+03	129	1.13E+03	-20
L4	8.70E+04	1.71E+03	129	1.13E+03	-20
NF	—	—	—	—	—
NS	8.51E+04	612.	64	1.14E+03	-93

Table H-764. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.27E+04	8.83E+04	8.26E+04	8.83E+04
FD	8.34E+04	8.84E+04	8.34E+04	8.84E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.32E+04	8.82E+04	8.32E+04	8.82E+04
L4	8.32E+04	8.82E+04	8.32E+04	8.82E+04
NF	—	—	—	—
NS	8.33E+04	8.67E+04	8.33E+04	8.67E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-383. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

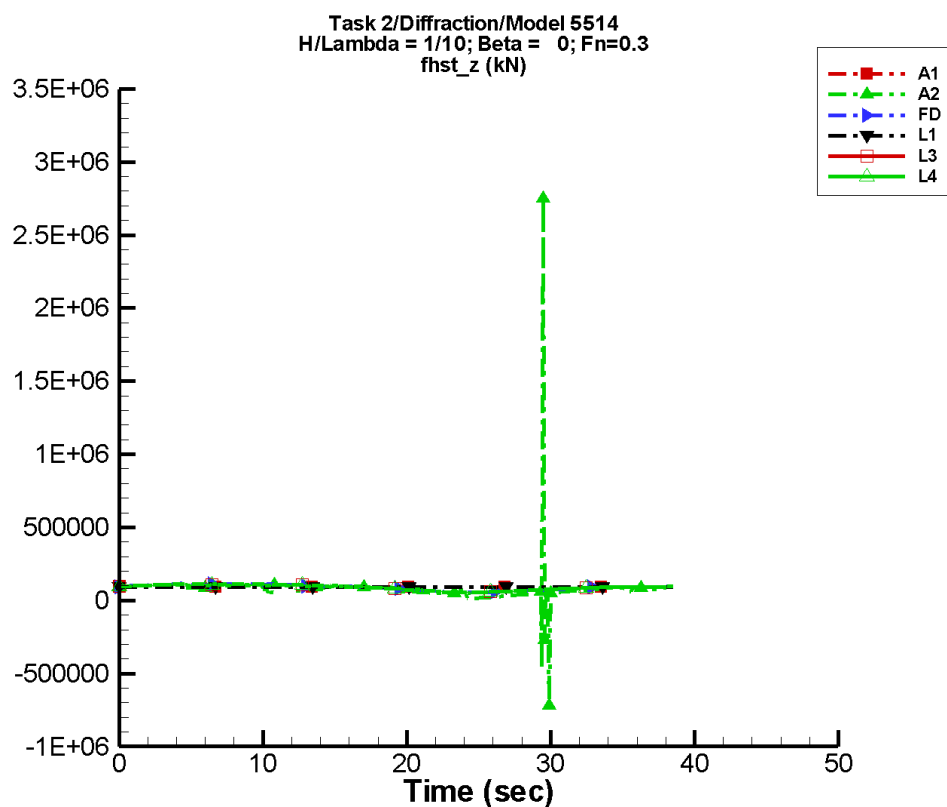
Table H-765. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.16E-02	105	2.50E-02	-39
A2	8.50E+04	7.48E+03	113	2.55E+03	131
FD	8.64E+04	8.38E+03	113	2.46E+03	155
L1	9.18E+04	1.10E-02	140	2.04E-02	-137
L3	8.64E+04	8.61E+03	108	2.62E+03	146
L4	8.64E+04	8.61E+03	108	2.62E+03	146
NF	—	—	—	—	—
NS	8.12E+04	1.83E+03	49	2.27E+03	-93

Table H-766. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.55E+04	9.99E+04	7.64E+04	9.91E+04
FD	7.71E+04	1.03E+05	7.72E+04	1.02E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.69E+04	1.02E+05	7.69E+04	1.02E+05
L4	7.69E+04	1.02E+05	7.69E+04	1.02E+05
NF	—	—	—	—
NS	7.72E+04	8.51E+04	7.73E+04	8.51E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-384. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

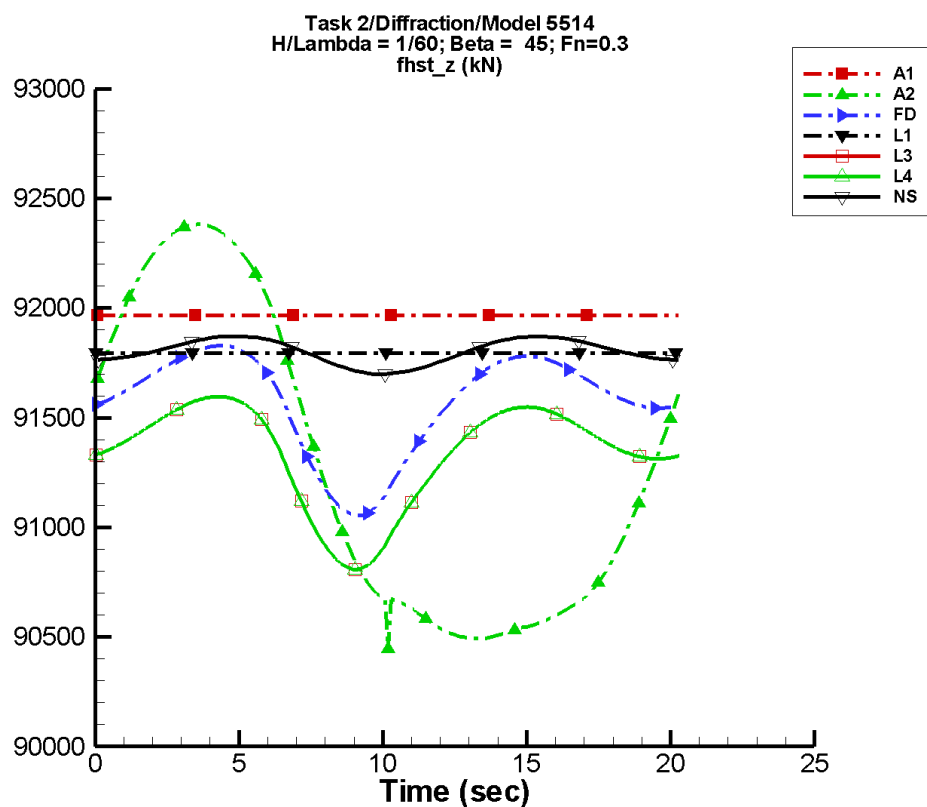
Table H-767. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	5.16E-02	105	2.50E-02	-39
A2	7.99E+04	2.56E+04	38	8.59E+03	-180
FD	8.90E+04	2.36E+04	38	6.21E+03	-163
L1	9.18E+04	1.10E-02	140	2.04E-02	-137
L3	8.85E+04	2.37E+04	34	6.05E+03	-168
L4	8.85E+04	2.37E+04	34	6.05E+03	-168
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-768. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	-7.17E+05	2.75E+06	-1.17E+04	2.64E+05
FD	5.36E+04	1.19E+05	5.38E+04	1.12E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	5.29E+04	1.14E+05	5.31E+04	1.13E+05
L4	5.29E+04	1.14E+05	5.31E+04	1.13E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-385. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-769. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

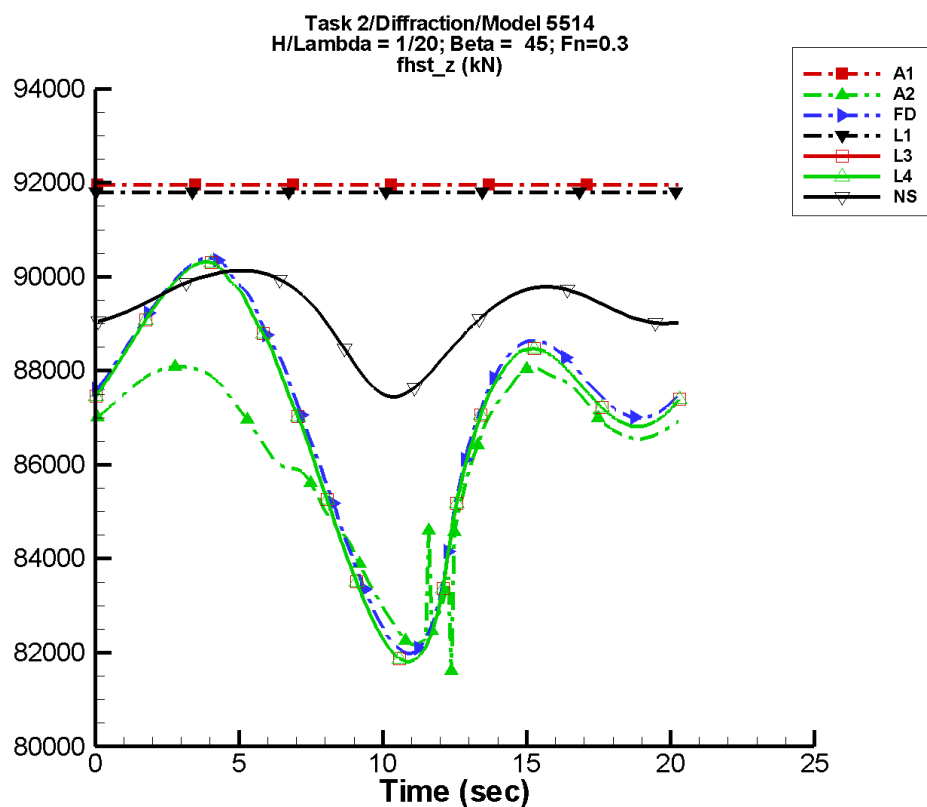
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.42E-02	-150	2.24E-02	152
A2	9.13E+04	959.	21	205.	-53
FD	9.16E+04	182.	91	246.	-84
L1	9.18E+04	4.42E-02	176	2.58E-02	-30
L3	9.13E+04	194.	98	263.	-68
L4	9.13E+04	194.	98	263.	-68
NF	—	—	—	—	—
NS	9.18E+04	27.5	93	69.2	-90

Table H-770. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.04E+04	9.24E+04	9.05E+04	9.24E+04
FD	9.11E+04	9.18E+04	9.11E+04	9.18E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.08E+04	9.16E+04	9.08E+04	9.16E+04
L4	9.08E+04	9.16E+04	9.08E+04	9.16E+04
NF	—	—	—	—
NS	9.17E+04	9.19E+04	9.17E+04	9.19E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-386. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

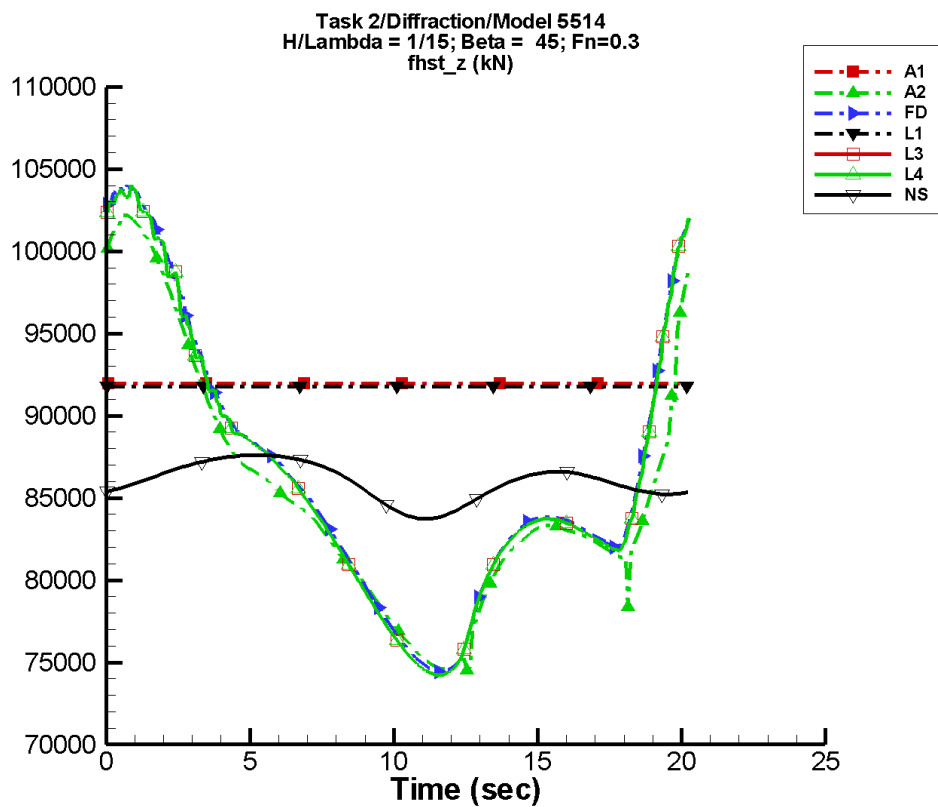
Table H-771. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.42E-02	-150	2.24E-02	152
A2	8.63E+04	1.97E+03	81	1.34E+03	-98
FD	8.72E+04	2.51E+03	58	2.20E+03	-103
L1	9.18E+04	4.42E-02	176	2.58E-02	-30
L3	8.70E+04	2.49E+03	65	2.12E+03	-86
L4	8.70E+04	2.49E+03	65	2.12E+03	-86
NF	—	—	—	—	—
NS	8.92E+04	626.	66	804.	-97

Table H-772. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.16E+04	8.81E+04	8.23E+04	8.81E+04
FD	8.20E+04	9.04E+04	8.20E+04	9.04E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.18E+04	9.03E+04	8.18E+04	9.03E+04
L4	8.18E+04	9.03E+04	8.18E+04	9.03E+04
NF	—	—	—	—
NS	8.74E+04	9.01E+04	8.75E+04	9.01E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-387. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

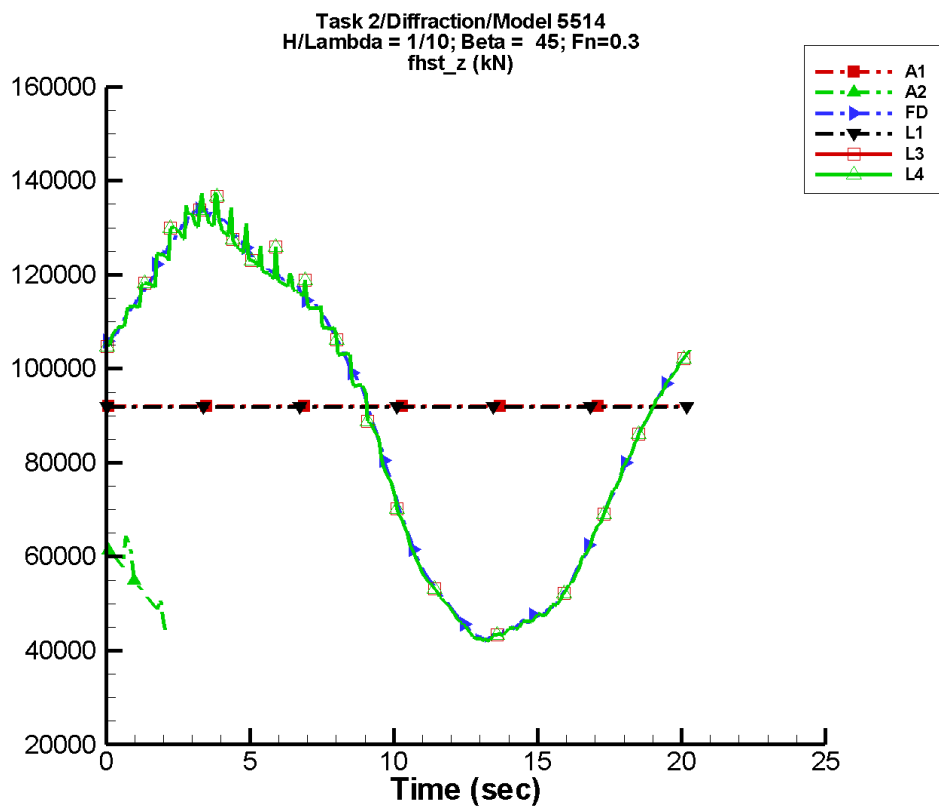
Table H-773. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.42E-02	-150	2.24E-02	152
A2	8.52E+04	9.47E+03	58	2.47E+03	15
FD	8.67E+04	1.13E+04	54	2.77E+03	18
L1	9.18E+04	4.42E-02	176	2.58E-02	-30
L3	8.65E+04	1.10E+04	62	2.45E+03	46
L4	8.65E+04	1.10E+04	62	2.45E+03	46
NF	—	—	—	—	—
NS	8.60E+04	947.	32	1.13E+03	-105

Table H-774. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.45E+04	1.02E+05	7.46E+04	1.02E+05
FD	7.44E+04	1.04E+05	7.45E+04	1.04E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.42E+04	1.04E+05	7.42E+04	1.04E+05
L4	7.42E+04	1.04E+05	7.42E+04	1.04E+05
NF	—	—	—	—
NS	8.37E+04	8.76E+04	8.38E+04	8.76E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-388. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

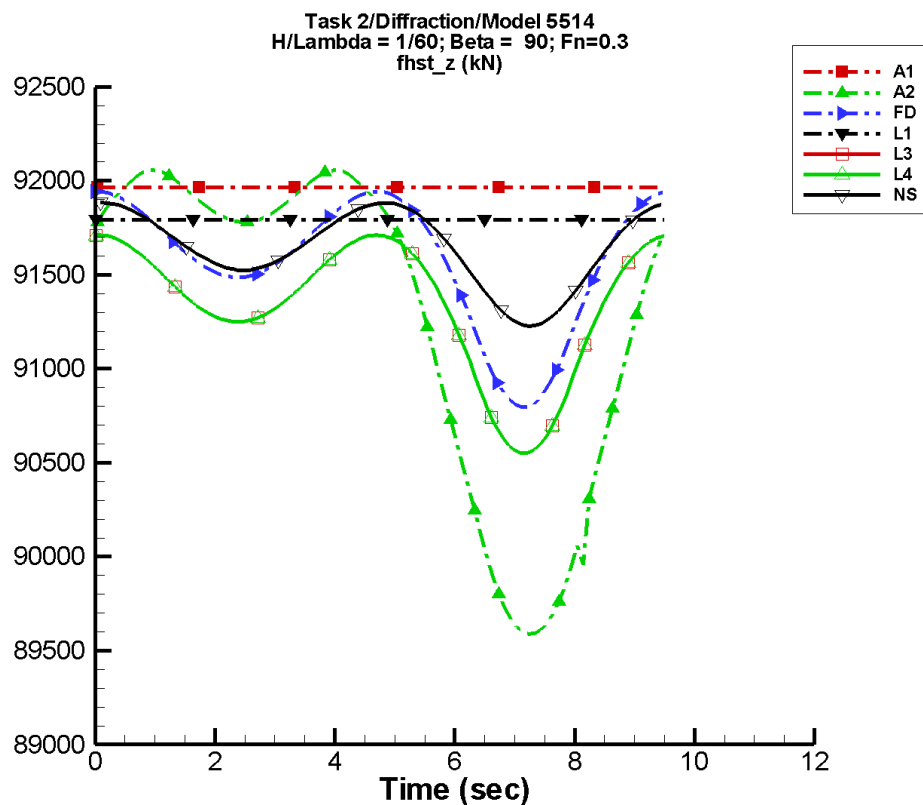
Table H-775. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.42E-02	-150	2.24E-02	152
A2	5.00E+04	4.49E+04	158	7.42E+03	-11
FD	8.87E+04	4.38E+04	12	3.15E+03	152
L1	9.18E+04	4.42E-02	176	2.58E-02	-30
L3	8.85E+04	4.37E+04	20	3.29E+03	155
L4	8.85E+04	4.37E+04	20	3.29E+03	155
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-776. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	4.35E+04	9.24E+04	4.53E+04	9.30E+04
FD	4.21E+04	1.34E+05	4.30E+04	1.33E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.20E+04	1.38E+05	4.23E+04	1.33E+05
L4	4.20E+04	1.38E+05	4.23E+04	1.33E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-389. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-777. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

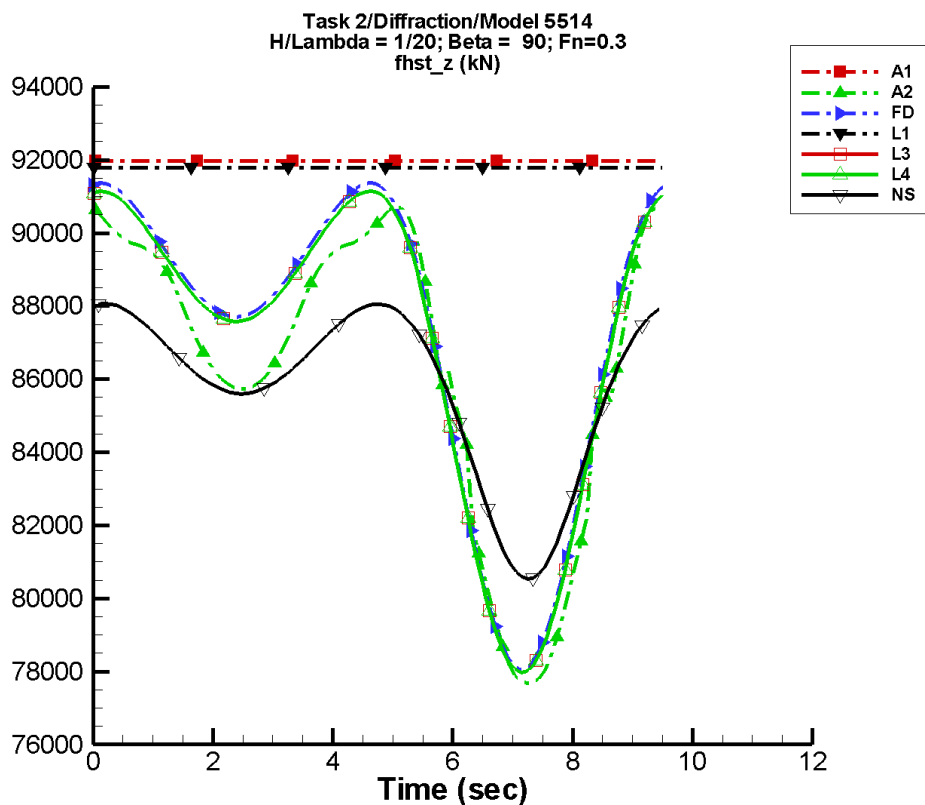
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	9.13E+04	1.06E+03	-9	561.	72
FD	9.16E+04	251.	-6	380.	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	9.13E+04	265.	-6	400.	81
L4	9.13E+04	265.	-6	400.	81
NF	—	—	—	—	—
NS	9.16E+04	111.	-6	248.	83

Table H-778. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.96E+04	9.21E+04	8.96E+04	9.20E+04
FD	9.08E+04	9.19E+04	9.08E+04	9.19E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.06E+04	9.17E+04	9.06E+04	9.17E+04
L4	9.06E+04	9.17E+04	9.06E+04	9.17E+04
NF	—	—	—	—
NS	9.12E+04	9.19E+04	9.12E+04	9.19E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-390. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

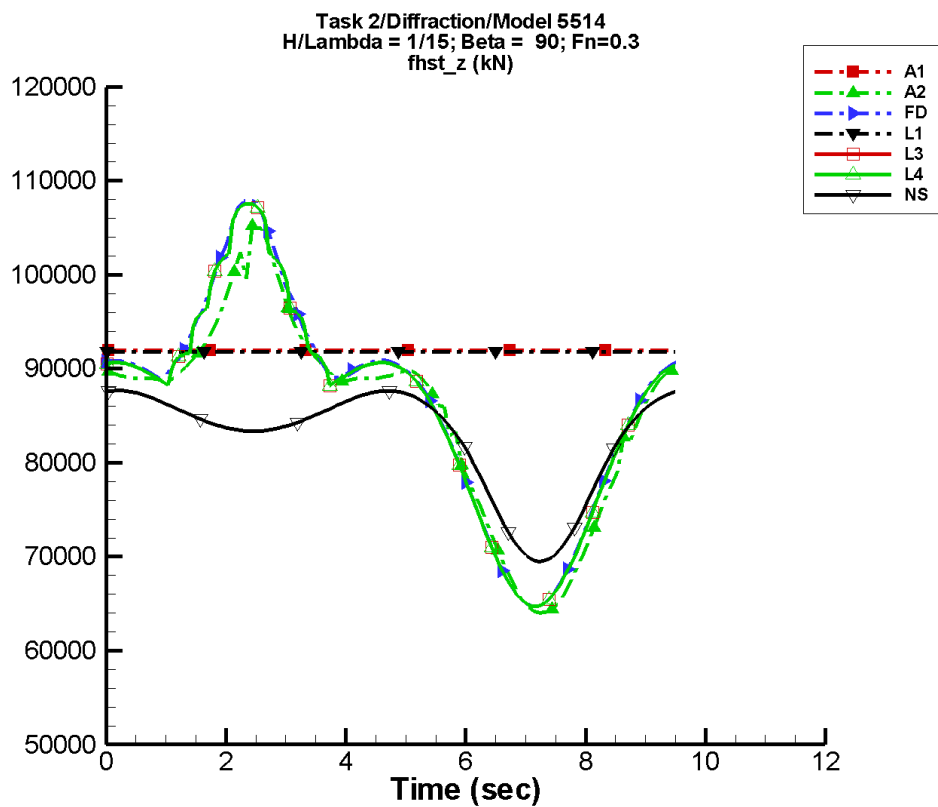
Table H-779. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.63E+04	3.37E+03	-12	4.26E+03	72
FD	8.71E+04	4.09E+03	-6	4.03E+03	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.69E+04	4.14E+03	-5	4.10E+03	82
L4	8.69E+04	4.14E+03	-5	4.10E+03	82
NF	—	—	—	—	—
NS	8.57E+04	1.91E+03	-5	2.40E+03	83

Table H-780. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.77E+04	9.07E+04	7.79E+04	9.05E+04
FD	7.81E+04	9.14E+04	7.84E+04	9.13E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.80E+04	9.11E+04	7.81E+04	9.11E+04
L4	7.80E+04	9.11E+04	7.81E+04	9.11E+04
NF	—	—	—	—
NS	8.05E+04	8.81E+04	8.07E+04	8.81E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-391. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

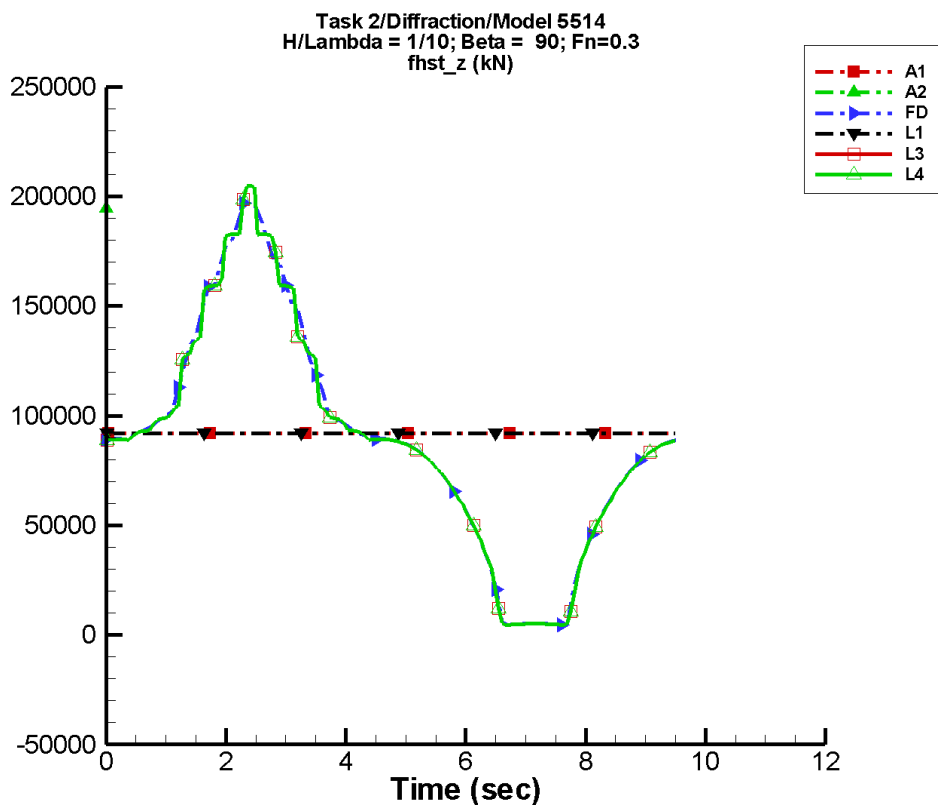
Table H-781. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	8.50E+04	1.31E+04	-11	3.31E+03	83
FD	8.62E+04	1.47E+04	-5	1.13E+03	79
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.60E+04	1.50E+04	-6	2.25E+03	68
L4	8.60E+04	1.50E+04	-6	2.25E+03	68
NF	—	—	—	—	—
NS	8.25E+04	5.12E+03	-5	5.35E+03	84

Table H-782. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	6.40E+04	1.05E+05	6.47E+04	1.02E+05
FD	6.48E+04	1.08E+05	6.54E+04	1.06E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	6.47E+04	1.08E+05	6.49E+04	1.07E+05
L4	6.47E+04	1.08E+05	6.49E+04	1.07E+05
NF	—	—	—	—
NS	6.95E+04	8.77E+04	6.98E+04	8.77E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-392. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

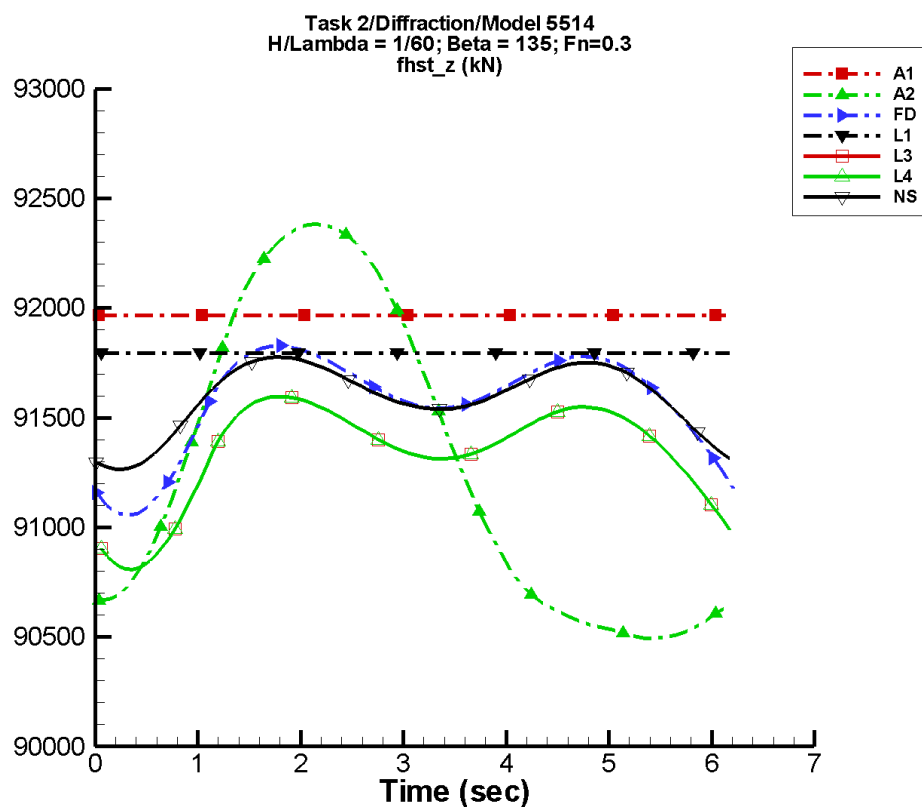
Table H-783. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	2.31E-02	164	5.19E-03	-105
A2	3.64E+04	4.47E+05	-66	1.59E+05	7
FD	8.71E+04	6.78E+04	-6	9.70E+03	-102
L1	9.18E+04	8.58E-02	-67	7.63E-02	-36
L3	8.63E+04	6.98E+04	-6	5.98E+03	-64
L4	8.63E+04	6.98E+04	-6	5.98E+03	-64
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-784. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	1.88E+05	1.94E+05	1.88E+05	1.94E+05
FD	4.67E+03	1.97E+05	3.69E+03	1.88E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.57E+03	2.05E+05	4.44E+03	1.94E+05
L4	4.57E+03	2.05E+05	4.44E+03	1.94E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-393. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-785. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

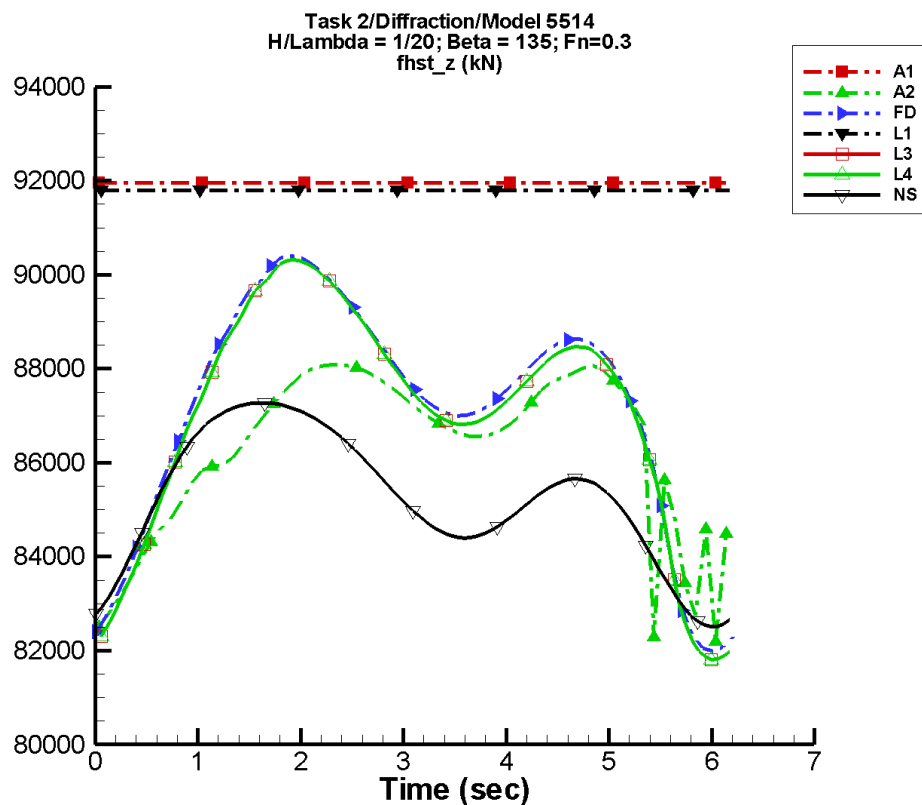
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.13E-02	-109	2.29E-02	-177
A2	9.13E+04	963.	-44	214.	-172
FD	9.16E+04	191.	-121	252.	-161
L1	9.18E+04	2.19E-02	51	2.34E-02	8
L3	9.13E+04	200.	-113	261.	-143
L4	9.13E+04	200.	-113	261.	-143
NF	—	—	—	—	—
NS	9.16E+04	111.	-95	187.	-114

Table H-786. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.05E+04	9.24E+04	9.05E+04	9.24E+04
FD	9.11E+04	9.18E+04	9.11E+04	9.18E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.08E+04	9.16E+04	9.08E+04	9.16E+04
L4	9.08E+04	9.16E+04	9.08E+04	9.16E+04
NF	—	—	—	—
NS	9.13E+04	9.18E+04	9.13E+04	9.18E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-394. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

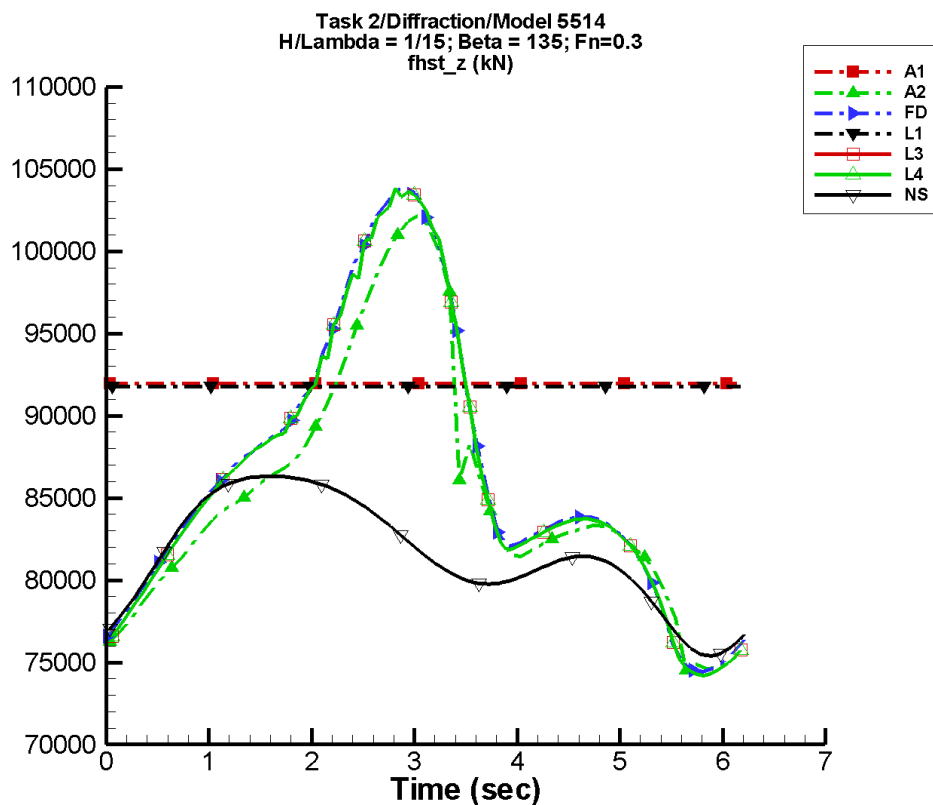
Table H-787. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.13E-02	-109	2.29E-02	-177
A2	8.63E+04	1.81E+03	-100	1.27E+03	-123
FD	8.71E+04	2.43E+03	-89	2.11E+03	-144
L1	9.18E+04	2.19E-02	51	2.34E-02	8
L3	8.70E+04	2.46E+03	-78	2.22E+03	-120
L4	8.70E+04	2.46E+03	-78	2.22E+03	-120
NF	—	—	—	—	—
NS	8.52E+04	1.38E+03	-34	1.31E+03	-89

Table H-788. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.22E+04	8.81E+04	8.28E+04	8.80E+04
FD	8.20E+04	9.04E+04	8.25E+04	9.02E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.18E+04	9.03E+04	8.19E+04	9.02E+04
L4	8.18E+04	9.03E+04	8.19E+04	9.02E+04
NF	—	—	—	—
NS	8.25E+04	8.73E+04	8.26E+04	8.72E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-395. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

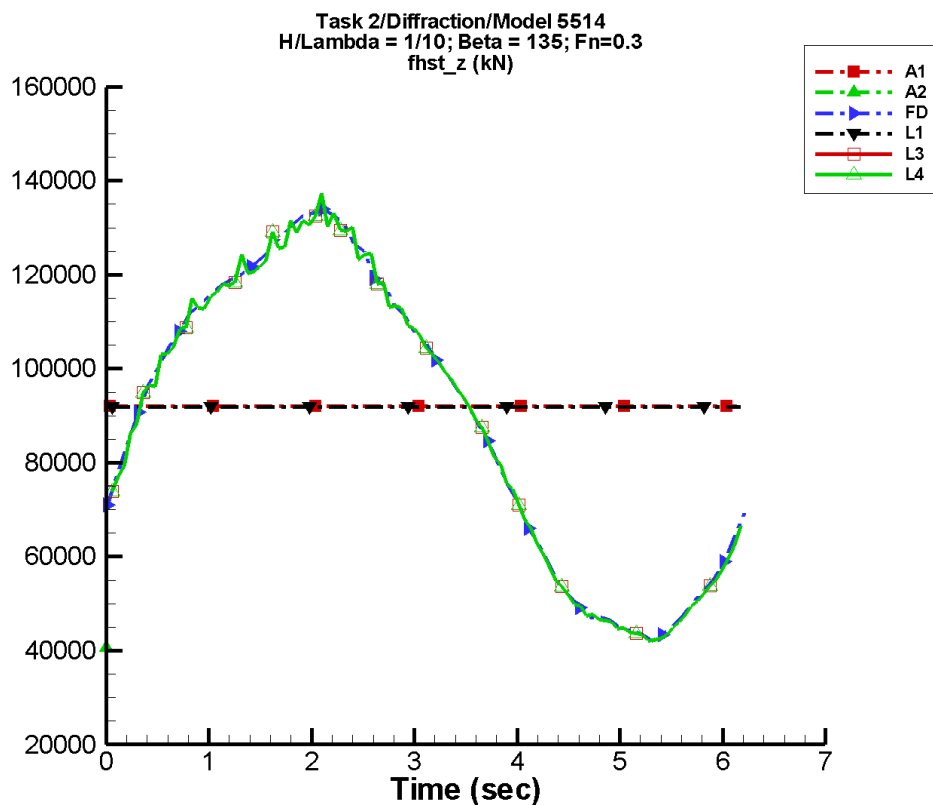
Table H-789. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.13E-02	-109	2.29E-02	-177
A2	8.53E+04	9.38E+03	-75	2.12E+03	128
FD	8.65E+04	1.08E+04	-85	2.85E+03	92
L1	9.18E+04	2.19E-02	51	2.34E-02	8
L3	8.65E+04	1.08E+04	-74	2.19E+03	124
L4	8.65E+04	1.08E+04	-74	2.19E+03	124
NF	—	—	—	—	—
NS	8.16E+04	3.74E+03	-30	2.42E+03	-83

Table H-790. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.45E+04	1.02E+05	7.54E+04	1.00E+05
FD	7.44E+04	1.04E+05	7.54E+04	1.02E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.42E+04	1.04E+05	7.45E+04	1.03E+05
L4	7.42E+04	1.04E+05	7.45E+04	1.03E+05
NF	—	—	—	—
NS	7.54E+04	8.63E+04	7.56E+04	8.63E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-396. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

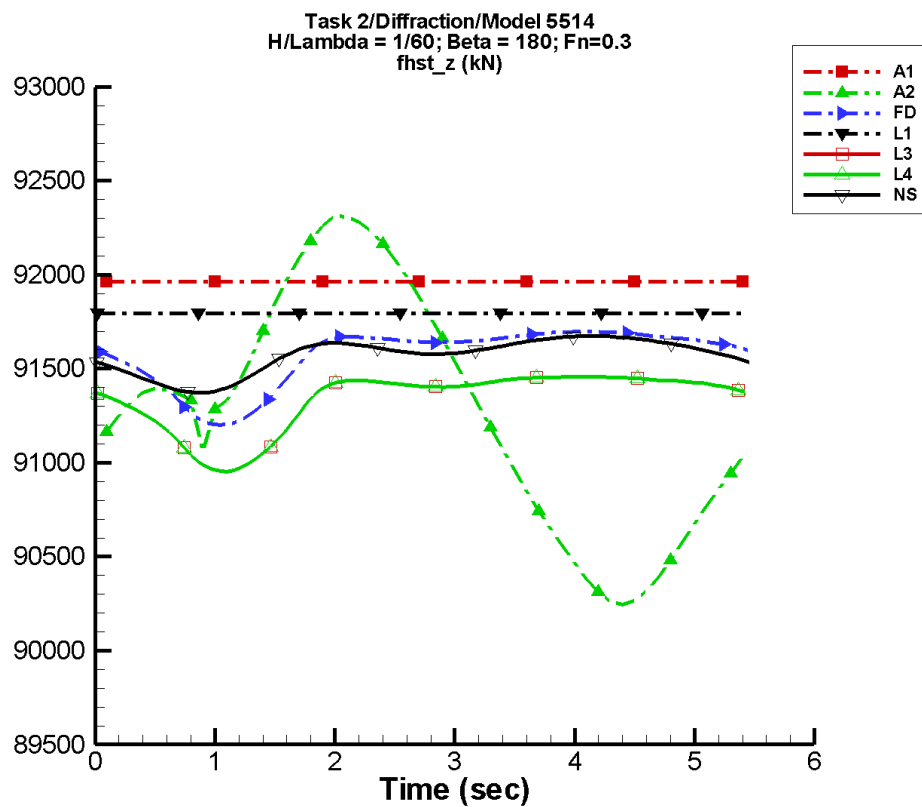
Table H-791. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	1.13E-02	-109	2.29E-02	-177
A2	4.42E+04	4.25E+04	-120	2.92E+04	103
FD	8.88E+04	4.37E+04	-45	3.30E+03	-28
L1	9.18E+04	2.19E-02	51	2.34E-02	8
L3	8.87E+04	4.39E+04	-33	3.78E+03	-10
L4	8.87E+04	4.39E+04	-33	3.78E+03	-10
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-792. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	3.90E+04	4.06E+04	3.90E+04	4.06E+04
FD	4.21E+04	1.34E+05	4.45E+04	1.31E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	4.21E+04	1.37E+05	4.32E+04	1.32E+05
L4	4.21E+04	1.37E+05	4.32E+04	1.32E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-397. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-793. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

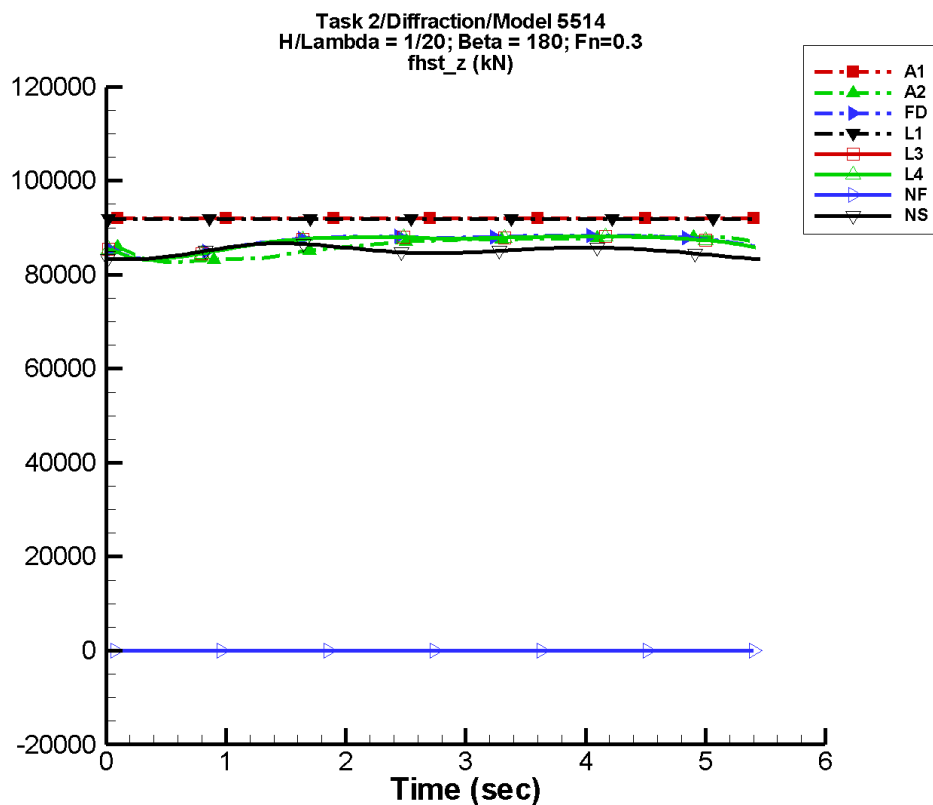
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.56E-03	-146	1.13E-02	-158
A2	9.13E+04	826.	-27	270.	122
FD	9.16E+04	174.	-65	105.	-32
L1	9.18E+04	5.99E-02	-27	5.53E-02	36
L3	9.13E+04	182.	-139	115.	-174
L4	9.13E+04	182.	-139	115.	-174
NF	—	—	—	—	—
NS	9.16E+04	105.	-150	68.2	-174

Table H-794. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	9.02E+04	9.23E+04	9.03E+04	9.22E+04
FD	9.12E+04	9.17E+04	9.13E+04	9.17E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	9.10E+04	9.15E+04	9.10E+04	9.15E+04
L4	9.10E+04	9.15E+04	9.10E+04	9.15E+04
NF	—	—	—	—
NS	9.14E+04	9.17E+04	9.14E+04	9.17E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-398. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

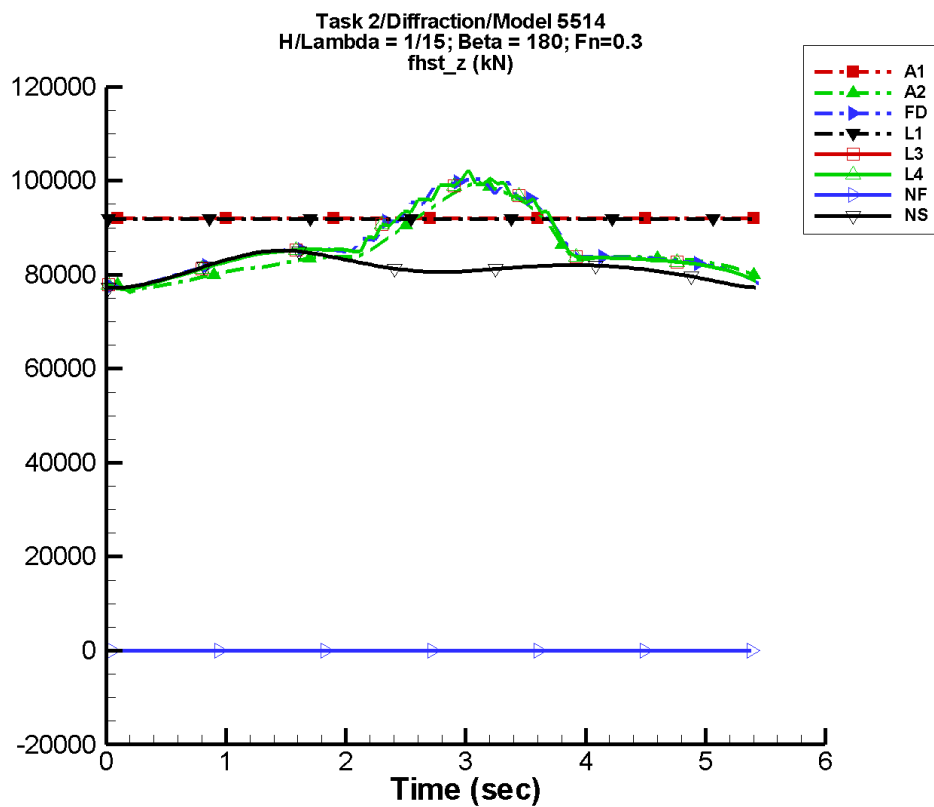
Table H-795. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.56E-03	-146	1.13E-02	-158
A2	8.62E+04	2.40E+03	-154	1.14E+03	174
FD	8.71E+04	1.73E+03	-34	1.10E+03	35
L1	9.18E+04	5.99E-02	-27	5.53E-02	36
L3	8.69E+04	1.77E+03	-102	1.14E+03	-103
L4	8.69E+04	1.77E+03	-102	1.14E+03	-103
NF	—	—	—	—	—
NS	8.51E+04	661.	-68	1.17E+03	-97

Table H-796. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	8.27E+04	8.83E+04	8.29E+04	8.81E+04
FD	8.34E+04	8.84E+04	8.41E+04	8.84E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	8.32E+04	8.82E+04	8.35E+04	8.82E+04
L4	8.32E+04	8.82E+04	8.35E+04	8.82E+04
NF	—	—	—	—
NS	8.33E+04	8.67E+04	8.33E+04	8.66E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-399. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

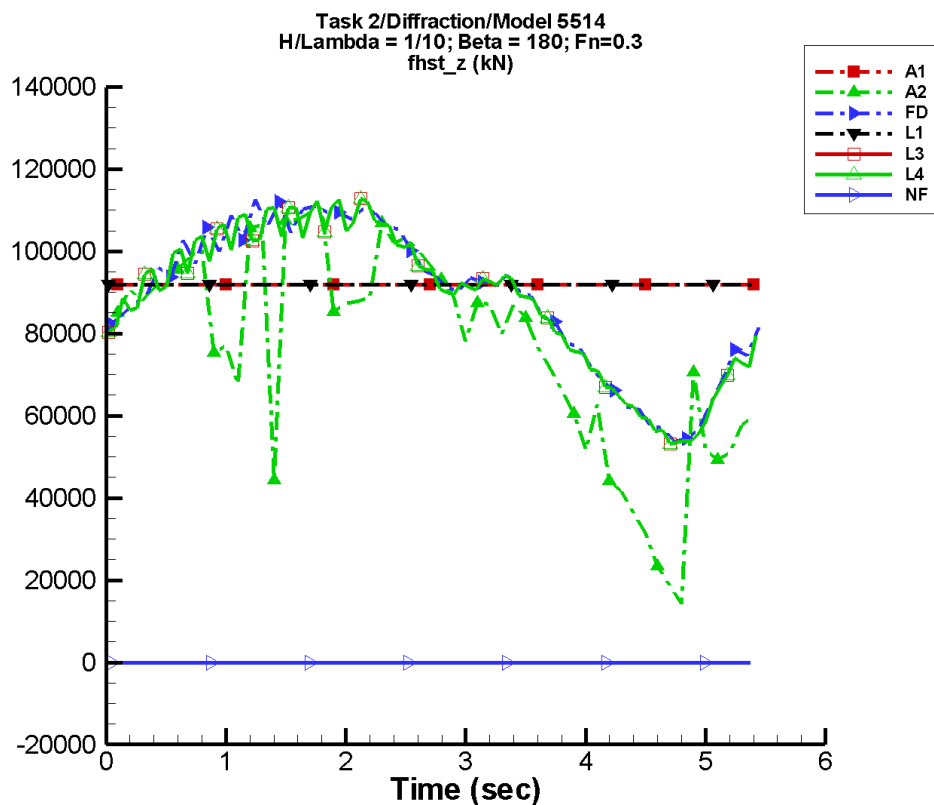
Table H-797. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.56E-03	-146	1.13E-02	-158
A2	8.51E+04	8.22E+03	-108	2.29E+03	62
FD	8.65E+04	8.62E+03	-13	2.72E+03	-133
L1	9.18E+04	5.99E-02	-27	5.53E-02	36
L3	8.61E+04	8.93E+03	-80	2.95E+03	80
L4	8.61E+04	8.93E+03	-80	2.95E+03	80
NF	—	—	—	—	—
NS	8.12E+04	1.92E+03	-53	2.32E+03	-93

Table H-798. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	7.62E+04	9.97E+04	7.75E+04	9.75E+04
FD	7.71E+04	1.03E+05	7.77E+04	9.93E+04
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	7.69E+04	1.02E+05	7.74E+04	9.98E+04
L4	7.69E+04	1.02E+05	7.74E+04	9.98E+04
NF	—	—	—	—
NS	7.72E+04	8.51E+04	7.72E+04	8.50E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-400. Time history of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

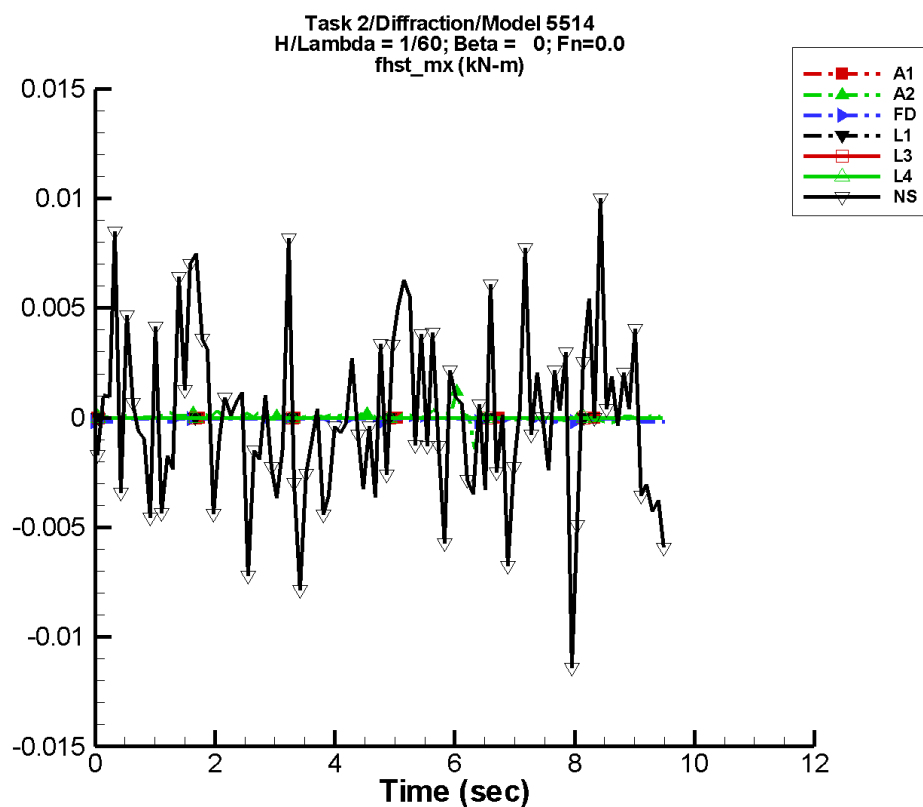
Table H-799. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.20E+04	3.56E-03	-146	1.13E-02	-158
A2	7.67E+04	2.71E+04	-25	1.31E+04	49
FD	8.87E+04	2.36E+04	63	5.82E+03	178
L1	9.18E+04	5.99E-02	-27	5.53E-02	36
L3	8.85E+04	2.32E+04	-7	5.38E+03	37
L4	8.85E+04	2.32E+04	-7	5.38E+03	37
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-800. Minimum and maximum of  $F_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	9.20E+04	9.20E+04	9.20E+04	9.20E+04
A2	1.43E+04	1.11E+05	3.49E+04	9.74E+04
FD	5.36E+04	1.19E+05	5.87E+04	1.10E+05
L1	9.18E+04	9.18E+04	9.18E+04	9.18E+04
L3	5.31E+04	1.14E+05	5.54E+04	1.10E+05
L4	5.31E+04	1.14E+05	5.54E+04	1.10E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-401. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-801. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

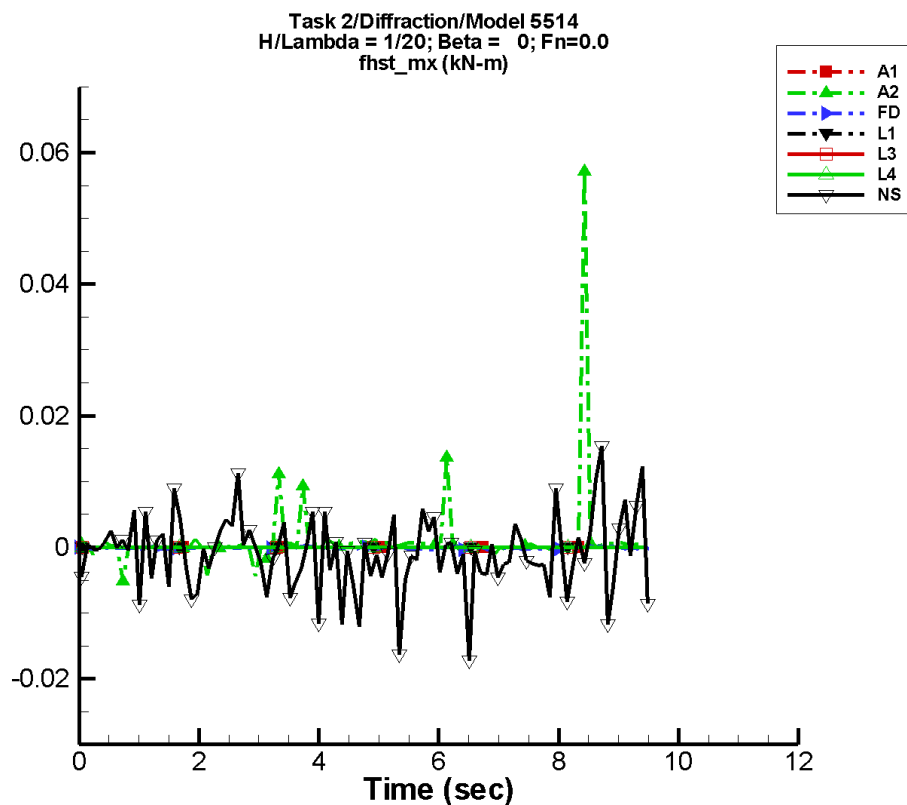
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	2.68E-05	8.07E-05	-30	5.25E-05	4
FD	-9.36E-05	1.54E-05	-95	1.31E-05	-104
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.84E-05	1.71E-04	-50	8.91E-04	-43

Table H-802. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.41E-03	1.20E-03	-1.44E-04	2.32E-04
FD	-1.77E-04	-4.79E-05	-1.51E-04	-4.61E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.14E-02	1.13E-02	-3.84E-03	7.15E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-402. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

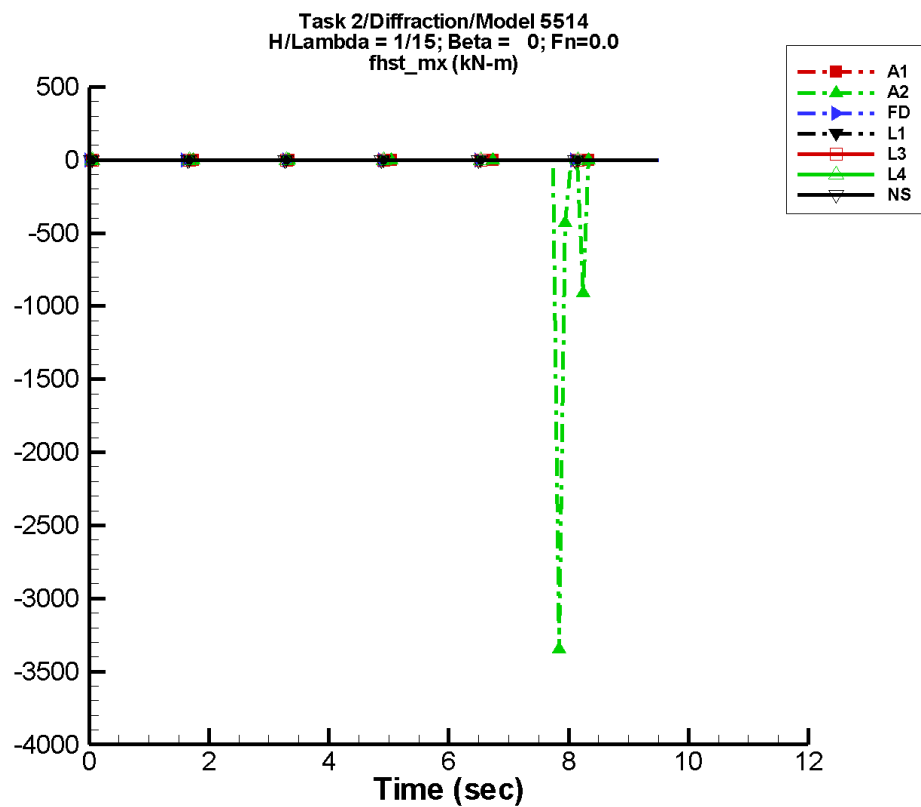
Table H-803. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.06E-03	8.22E-04	160	1.29E-03	158
FD	-1.16E-04	2.79E-05	-3	7.47E-05	161
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-9.88E-04	1.80E-03	74	4.19E-04	-175

Table H-804. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.18E-03	5.72E-02	-6.56E-04	7.81E-03
FD	-3.72E-04	2.02E-04	-2.28E-04	4.89E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.72E-02	1.53E-02	-4.21E-03	2.50E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-403. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

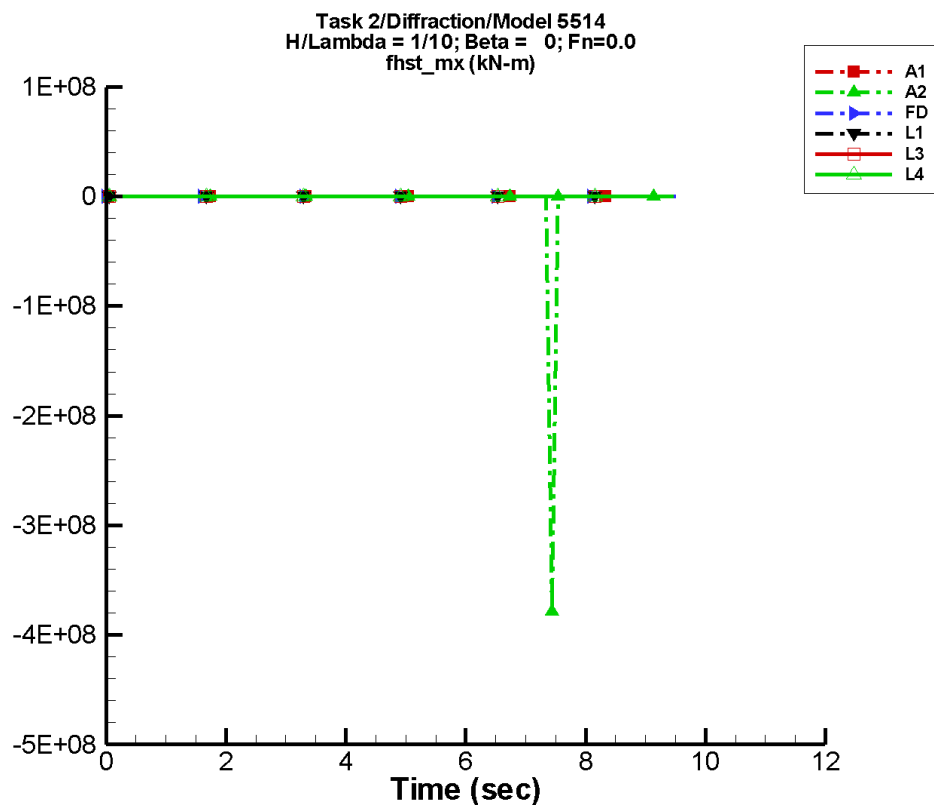
Table H-805. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-52.8	95.2	-38	91.1	26
FD	-7.76E-05	3.72E-05	-112	1.13E-04	-122
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.17E-03	2.96E-03	108	3.38E-04	-120

Table H-806. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.35E+03	0.134	-572.	40.3
FD	-5.52E-04	2.53E-04	-3.05E-04	8.94E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.03E-02	2.04E-02	-7.13E-03	1.16E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-404. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

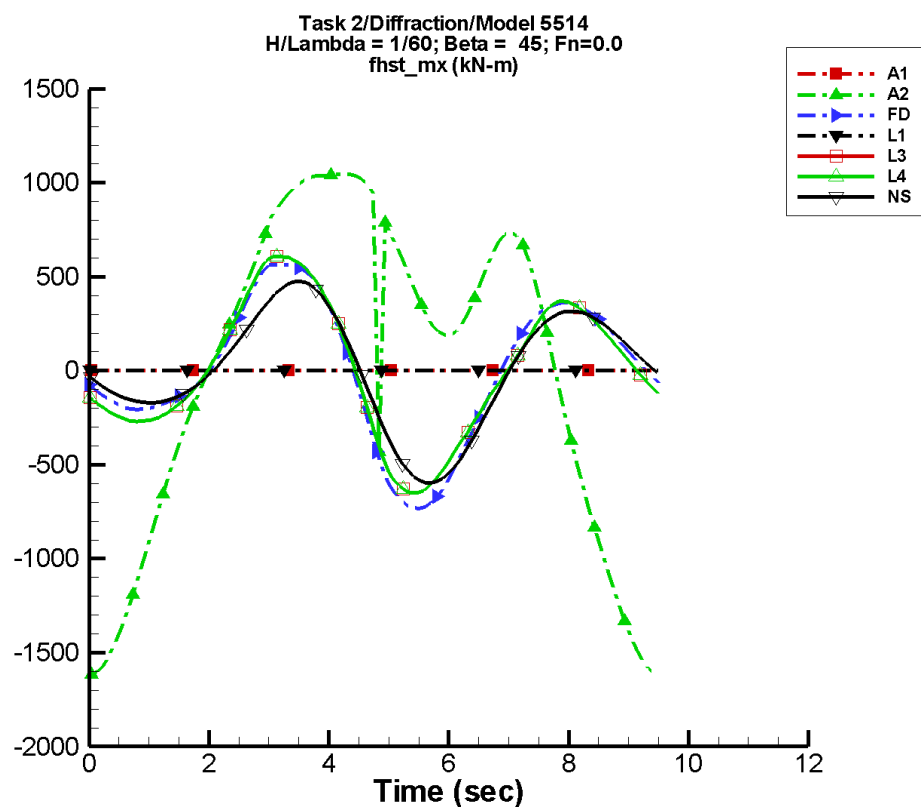
Table H–807. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-4.30E+06	7.85E+06	-20	7.36E+06	61
FD	6.45E-05	2.26E-04	-60	3.20E-04	144
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–808. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.79E+08	6.67E+04	-5.05E+07	4.32E+06
FD	-7.90E-04	1.51E-03	-6.12E-04	1.14E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-405. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-809. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

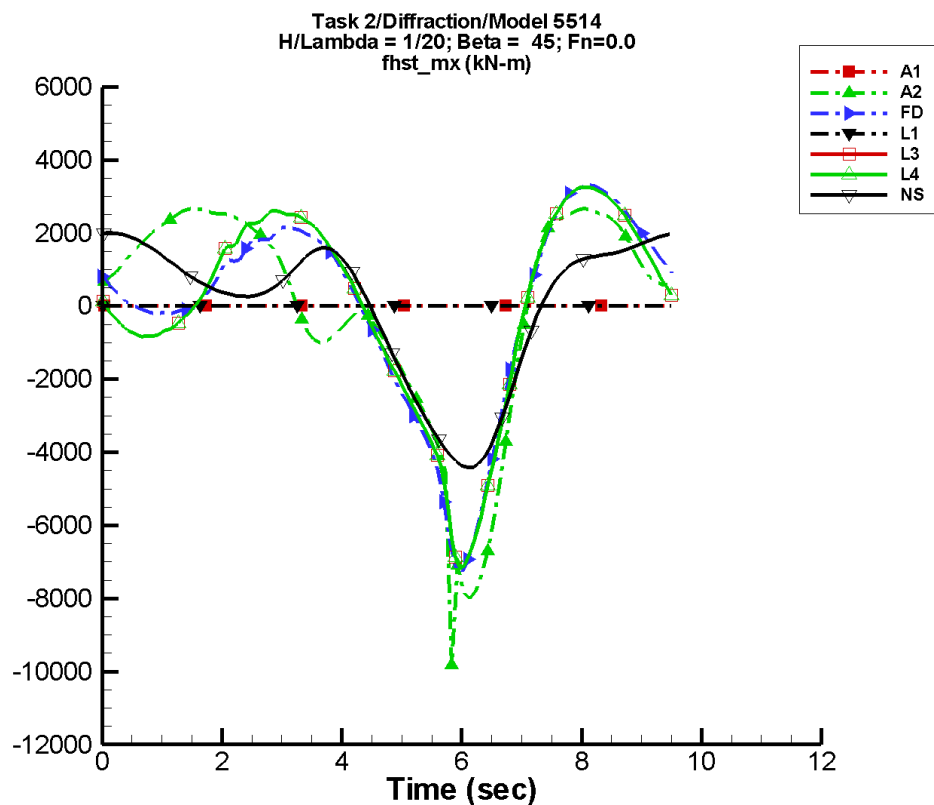
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.10	1.06E+03	-91	473.	-121
FD	8.66	166.	33	463.	-168
L1	—	—	—	—	—
L3	4.73	145.	19	454.	-161
L4	4.73	145.	19	454.	-161
NF	—	—	—	—	—
NS	3.02	140.	39	375.	-166

Table H-810. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.62E+03	1.05E+03	-1.60E+03	1.05E+03
FD	-732.	565.	-704.	556.
L1	—	—	—	—
L3	-649.	609.	-640.	603.
L4	-649.	609.	-640.	603.
NF	—	—	—	—
NS	-596.	477.	-573.	453.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-406. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

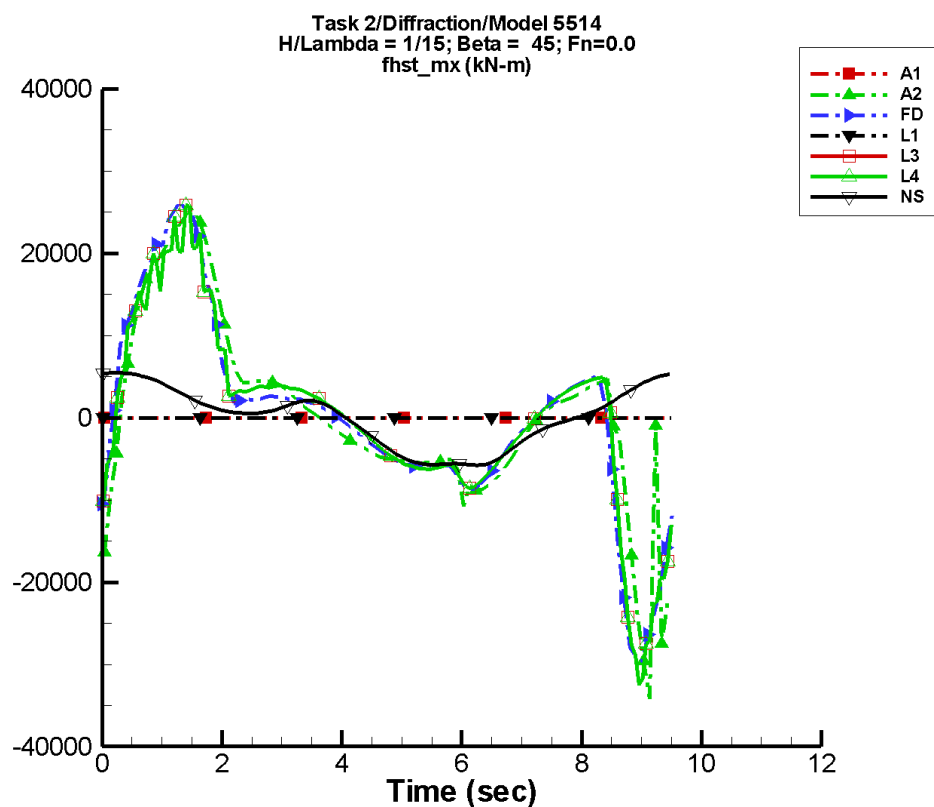
Table H-811. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.73	3.18E+03	50	1.62E+03	-168
FD	-5.44	2.18E+03	55	2.73E+03	-179
L1	—	—	—	—	—
L3	11.6	1.95E+03	47	3.00E+03	-171
L4	11.6	1.95E+03	47	3.00E+03	-171
NF	—	—	—	—	—
NS	49.8	2.16E+03	54	1.52E+03	161

Table H-812. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-9.83E+03	2.67E+03	-7.31E+03	2.60E+03
FD	-7.27E+03	3.30E+03	-6.24E+03	3.19E+03
L1	—	—	—	—
L3	-7.15E+03	3.26E+03	-6.68E+03	3.21E+03
L4	-7.15E+03	3.26E+03	-6.68E+03	3.21E+03
NF	—	—	—	—
NS	-4.42E+03	2.00E+03	-4.23E+03	2.00E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-407. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

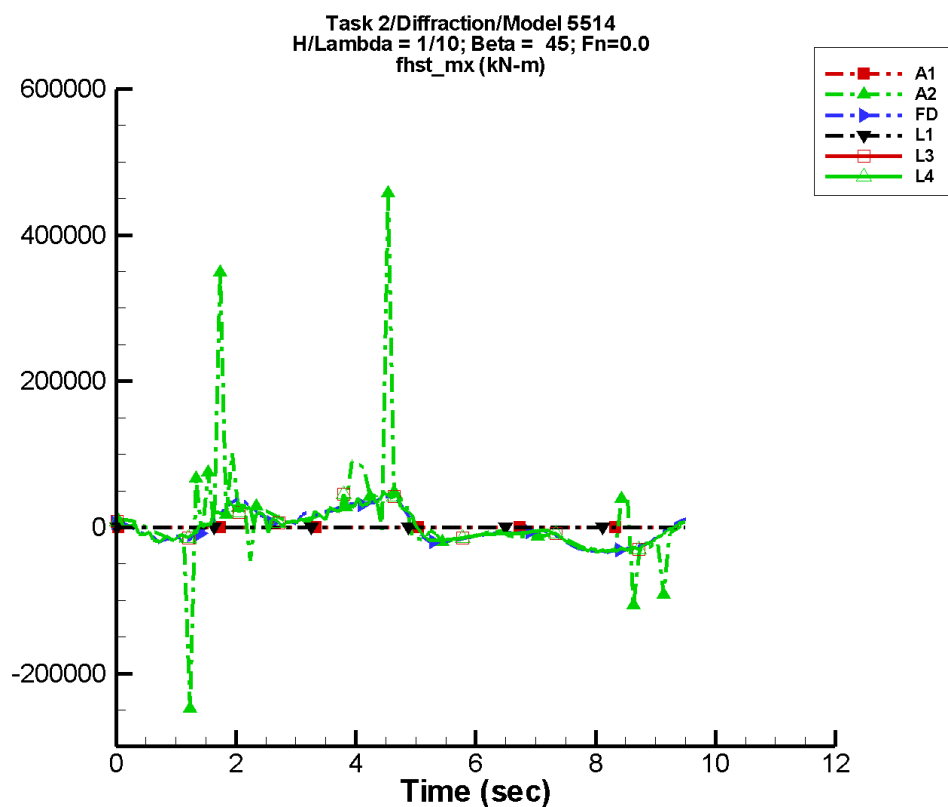
Table H-813. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	736.	9.72E+03	16	8.82E+03	-57
FD	523.	8.45E+03	16	7.18E+03	-36
L1	—	—	—	—	—
L3	727.	9.14E+03	14	8.03E+03	-49
L4	727.	9.14E+03	14	8.03E+03	-49
NF	—	—	—	—	—
NS	56.2	4.64E+03	59	1.78E+03	140

Table H-814. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.42E+04	2.52E+04	-2.09E+04	2.30E+04
FD	-2.97E+04	2.64E+04	-2.41E+04	2.36E+04
L1	—	—	—	—
L3	-3.26E+04	2.65E+04	-2.79E+04	2.23E+04
L4	-3.26E+04	2.65E+04	-2.79E+04	2.23E+04
NF	—	—	—	—
NS	-5.78E+03	5.47E+03	-5.69E+03	5.43E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-408. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

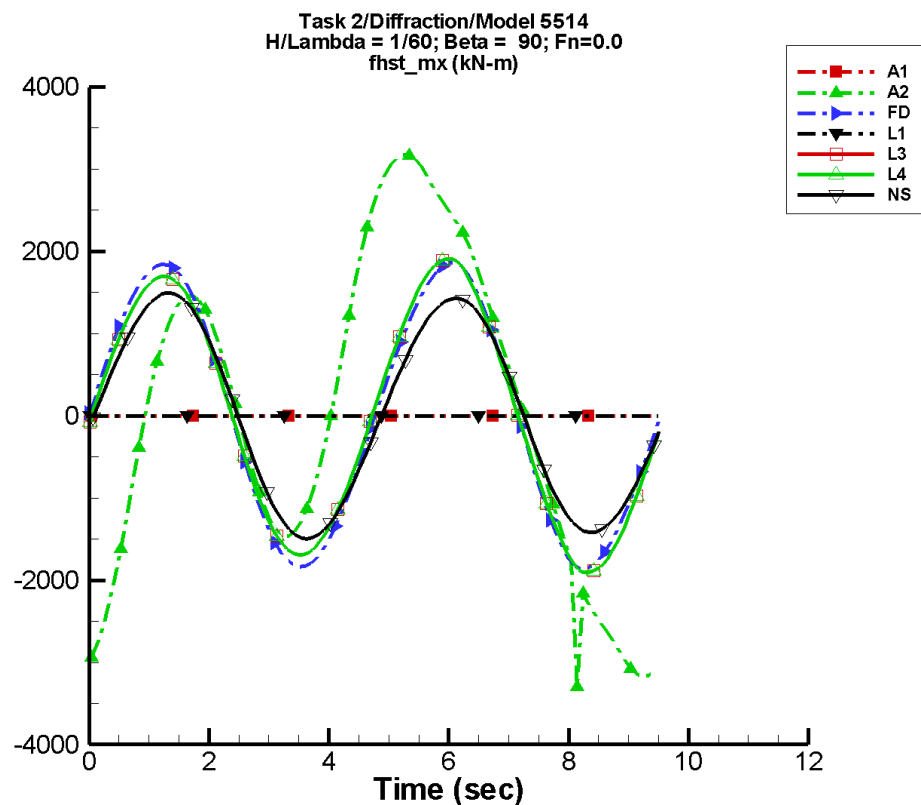
Table H–815. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.51E+03	3.62E+04	-34	6.74E+03	167
FD	-118.	2.28E+04	-39	3.74E+03	147
L1	—	—	—	—	—
L3	-528.	2.22E+04	-41	4.78E+03	138
L4	-528.	2.22E+04	-41	4.78E+03	138
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–816. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.99E+05	4.57E+05	-3.15E+04	9.62E+04
FD	-3.38E+04	4.27E+04	-3.20E+04	3.64E+04
L1	—	—	—	—
L3	-3.31E+04	4.64E+04	-3.16E+04	4.03E+04
L4	-3.31E+04	4.64E+04	-3.16E+04	4.03E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-409. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–817. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

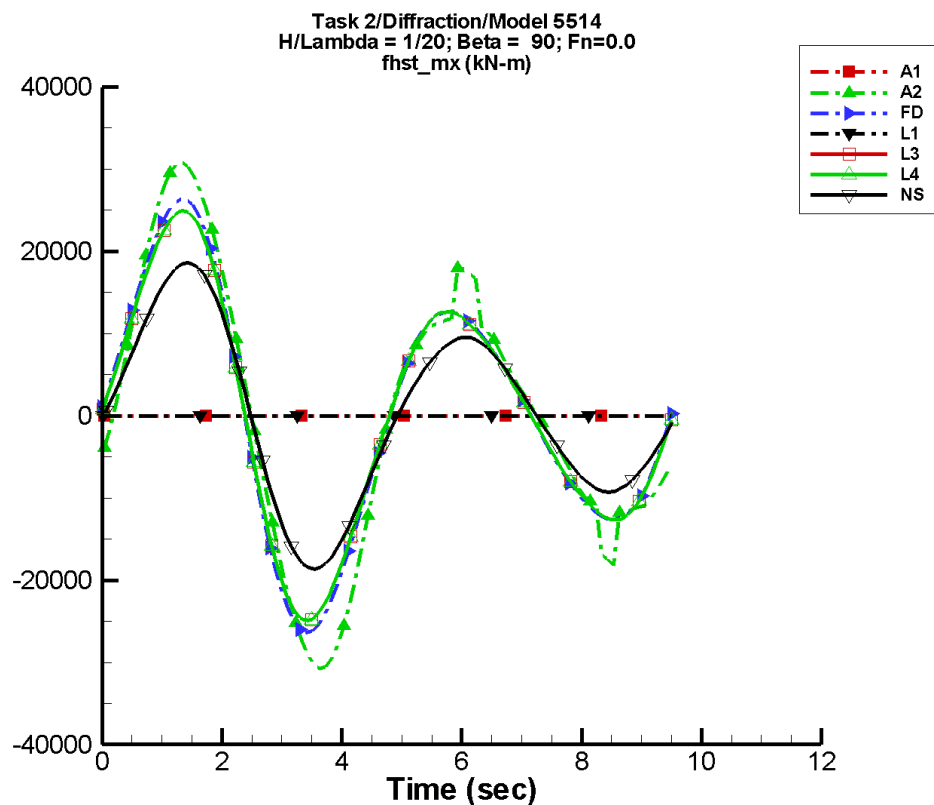
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-10.6	1.95E+03	-96	1.82E+03	-22
FD	-1.29	9.19	87	1.83E+03	-11
L1	—	—	—	—	—
L3	0.782	120.	-95	1.78E+03	-7
L4	0.782	120.	-95	1.78E+03	-7
NF	—	—	—	—	—
NS	1.37	34.0	85	1.46E+03	-8

Table H–818. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.30E+03	3.17E+03	-3.06E+03	3.06E+03
FD	-1.87E+03	1.86E+03	-1.77E+03	1.77E+03
L1	—	—	—	—
L3	-1.91E+03	1.90E+03	-1.88E+03	1.88E+03
L4	-1.91E+03	1.90E+03	-1.88E+03	1.88E+03
NF	—	—	—	—
NS	-1.50E+03	1.49E+03	-1.43E+03	1.44E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-410. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

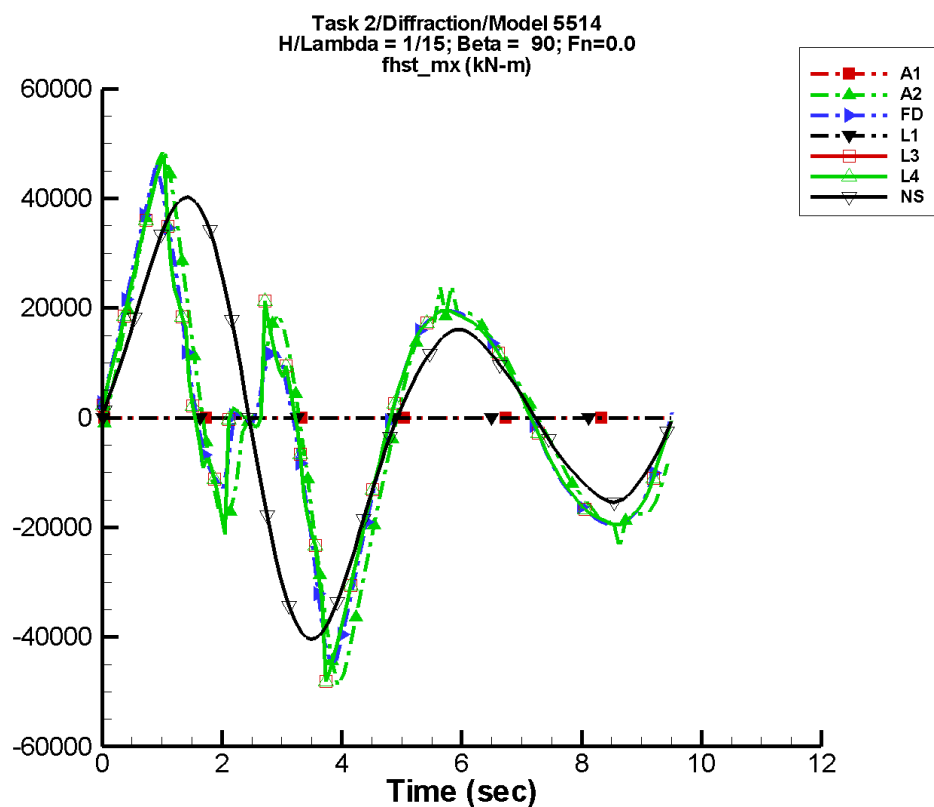
Table H–819. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-385.	3.98E+03	75	2.22E+04	-23
FD	-164.	4.97E+03	85	1.99E+04	-12
L1	—	—	—	—	—
L3	-60.7	4.30E+03	84	1.85E+04	-6
L4	-60.7	4.30E+03	84	1.85E+04	-6
NF	—	—	—	—	—
NS	83.2	3.54E+03	82	1.39E+04	-10

Table H–820. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.96E+04	3.08E+04	-2.89E+04	2.94E+04
FD	-2.64E+04	2.63E+04	-2.49E+04	2.50E+04
L1	—	—	—	—
L3	-2.49E+04	2.49E+04	-2.44E+04	2.44E+04
L4	-2.49E+04	2.49E+04	-2.44E+04	2.44E+04
NF	—	—	—	—
NS	-1.87E+04	1.86E+04	-1.78E+04	1.78E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-411. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

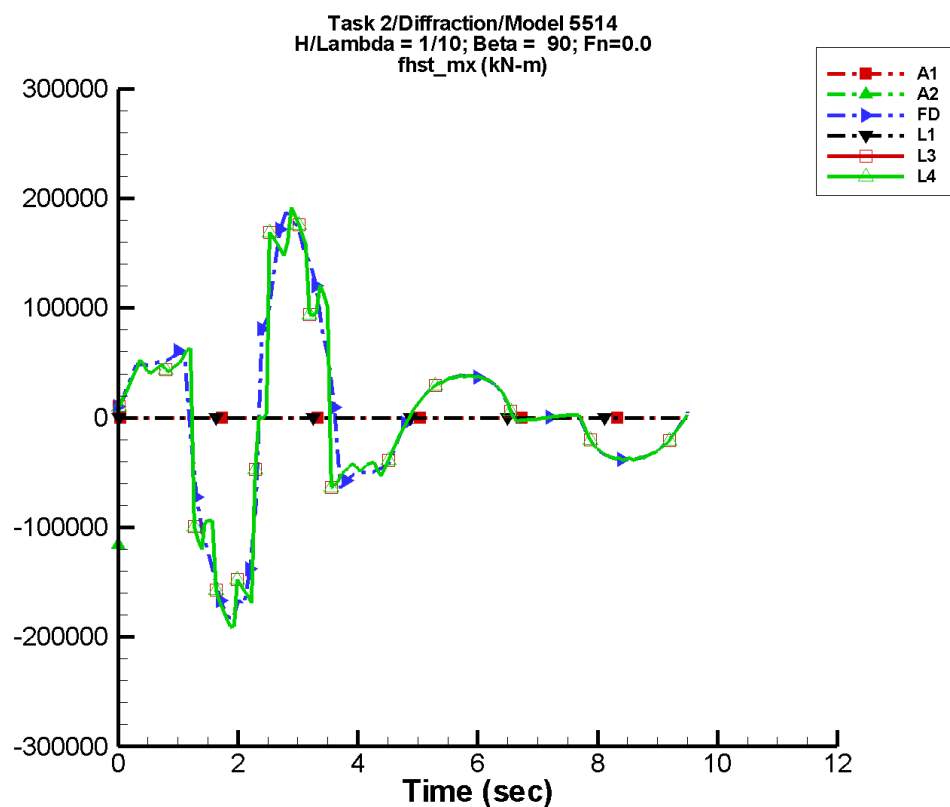
Table H-821. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	108.	5.32E+03	89	2.31E+04	-12
FD	125.	5.24E+03	84	2.08E+04	-11
L1	—	—	—	—	—
L3	343.	4.04E+03	90	2.06E+04	-6
L4	343.	4.04E+03	90	2.06E+04	-6
NF	—	—	—	—	—
NS	214.	9.30E+03	82	2.78E+04	-9

Table H-822. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.89E+04	4.89E+04	-3.92E+04	3.93E+04
FD	-4.61E+04	4.64E+04	-3.71E+04	3.59E+04
L1	—	—	—	—
L3	-4.81E+04	4.79E+04	-3.98E+04	3.97E+04
L4	-4.81E+04	4.79E+04	-3.98E+04	3.97E+04
NF	—	—	—	—
NS	-4.04E+04	4.02E+04	-3.92E+04	3.91E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-412. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

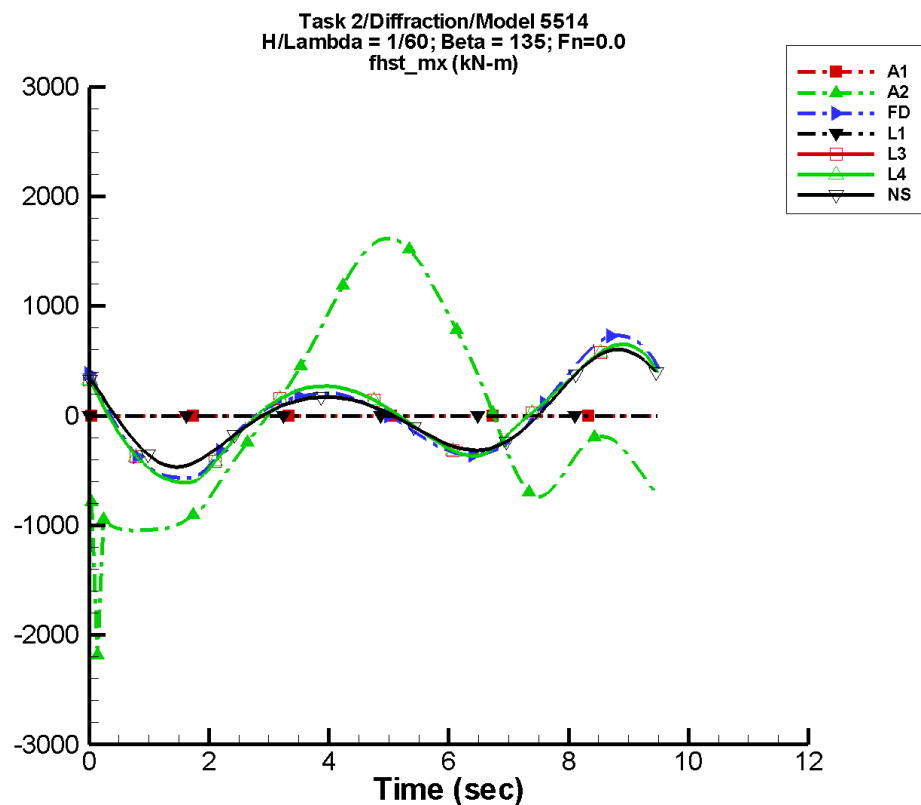
Table H–823. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.50E+05	3.43E+05	-17	2.83E+05	165
FD	2.39E+03	1.39E+04	-92	2.12E+04	157
L1	—	—	—	—	—
L3	2.00E+03	1.51E+04	-110	1.18E+04	165
L4	2.00E+03	1.51E+04	-110	1.18E+04	165
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H–824. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.59E+05	-1.16E+05	-1.59E+05	-1.16E+05
FD	-1.87E+05	1.88E+05	-1.58E+05	1.58E+05
L1	—	—	—	—
L3	-1.98E+05	1.92E+05	-1.73E+05	1.69E+05
L4	-1.98E+05	1.92E+05	-1.73E+05	1.69E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-413. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-825. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

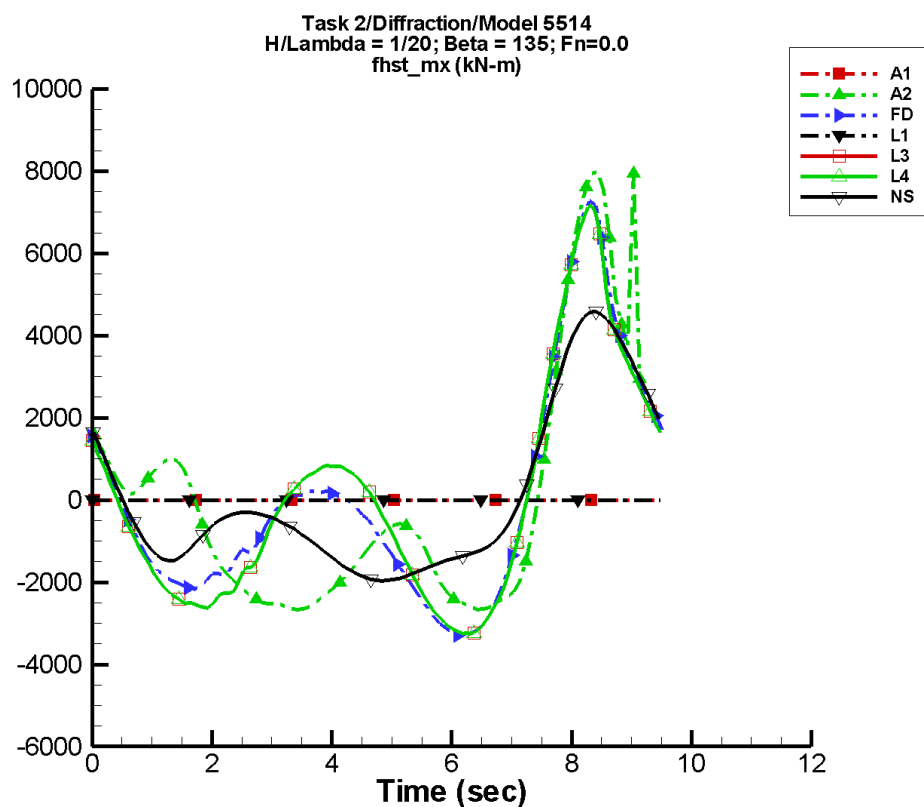
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-18.5	1.15E+03	-105	405.	91
FD	-6.82	164.	136	466.	146
L1	—	—	—	—	—
L3	-5.92	140.	157	462.	148
L4	-5.92	140.	157	462.	148
NF	—	—	—	—	—
NS	-1.81	134.	139	392.	151

Table H-826. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.18E+03	1.62E+03	-1.10E+03	1.57E+03
FD	-568.	733.	-554.	704.
L1	—	—	—	—
L3	-609.	649.	-603.	640.
L4	-609.	649.	-603.	640.
NF	—	—	—	—
NS	-468.	603.	-445.	579.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-414. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

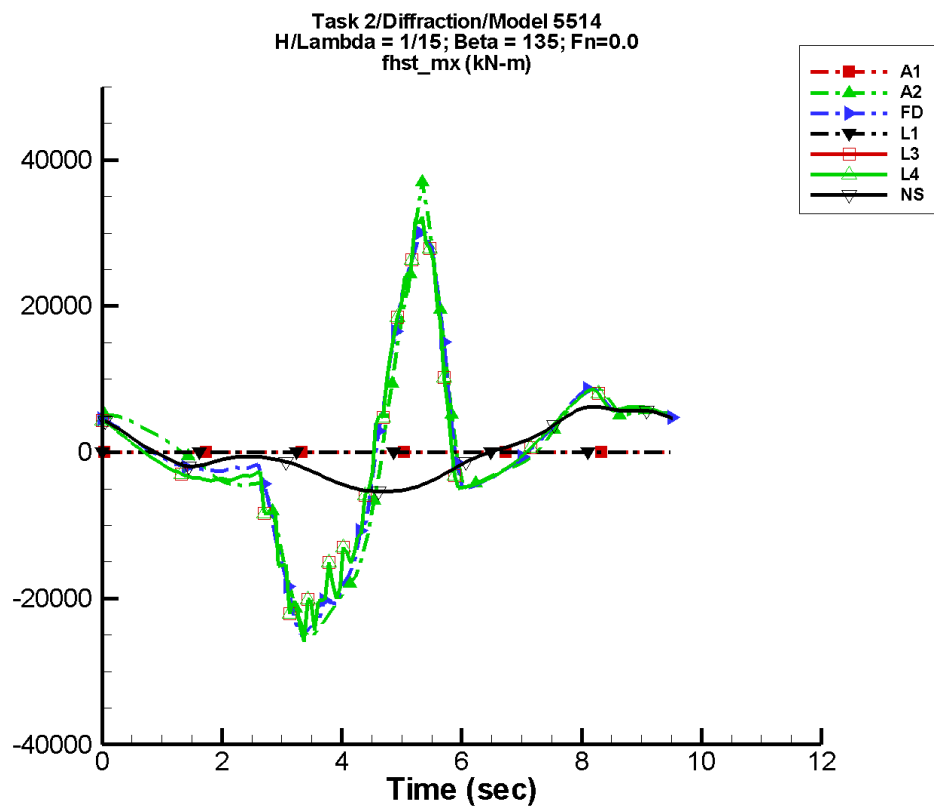
Table H-827. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	41.0	2.93E+03	109	1.47E+03	144
FD	-25.9	2.17E+03	114	2.72E+03	158
L1	—	—	—	—	—
L3	-12.7	1.94E+03	124	2.89E+03	156
L4	-12.7	1.94E+03	124	2.89E+03	156
NF	—	—	—	—	—
NS	13.3	2.10E+03	119	1.62E+03	-177

Table H-828. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.66E+03	7.98E+03	-2.60E+03	6.95E+03
FD	-3.30E+03	7.28E+03	-3.19E+03	6.23E+03
L1	—	—	—	—
L3	-3.25E+03	7.15E+03	-3.21E+03	6.68E+03
L4	-3.25E+03	7.15E+03	-3.21E+03	6.68E+03
NF	—	—	—	—
NS	-1.97E+03	4.58E+03	-1.93E+03	4.37E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-415. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

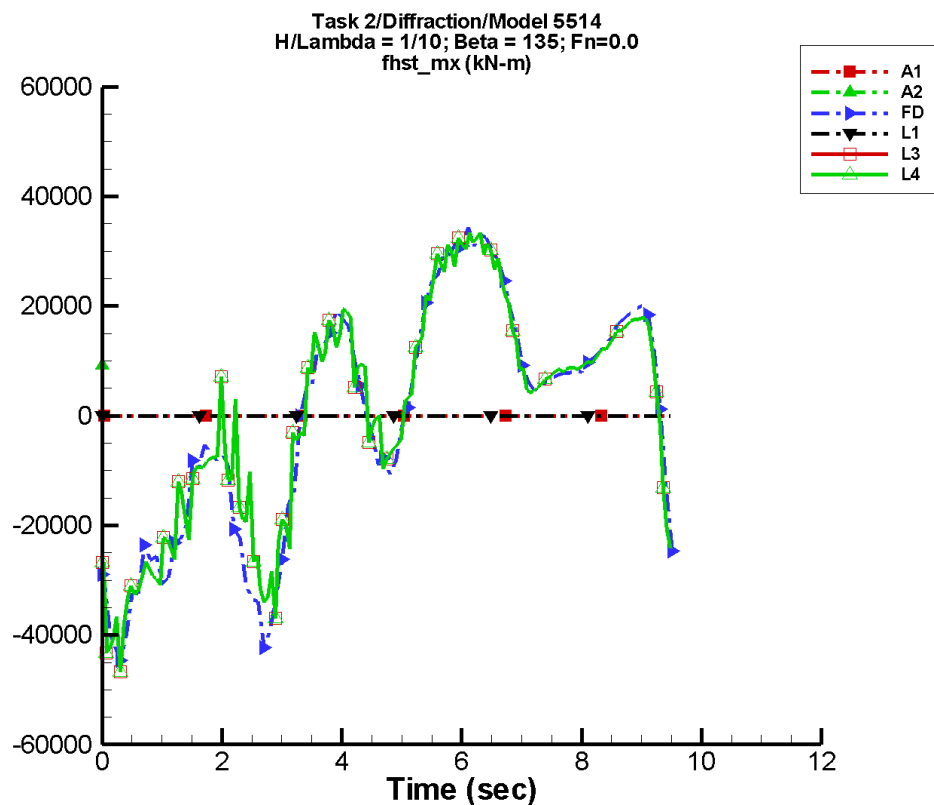
Table H-829. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-245.	8.26E+03	156	7.71E+03	27
FD	-574.	8.36E+03	155	7.07E+03	13
L1	—	—	—	—	—
L3	-616.	8.14E+03	160	6.36E+03	24
L4	-616.	8.14E+03	160	6.36E+03	24
NF	—	—	—	—	—
NS	24.5	4.71E+03	118	1.81E+03	-160

Table H-830. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.51E+04	3.69E+04	-2.30E+04	2.53E+04
FD	-2.67E+04	3.00E+04	-2.34E+04	2.44E+04
L1	—	—	—	—
L3	-2.59E+04	3.22E+04	-2.21E+04	2.85E+04
L4	-2.59E+04	3.22E+04	-2.21E+04	2.85E+04
NF	—	—	—	—
NS	-5.39E+03	6.24E+03	-5.33E+03	6.08E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-416. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

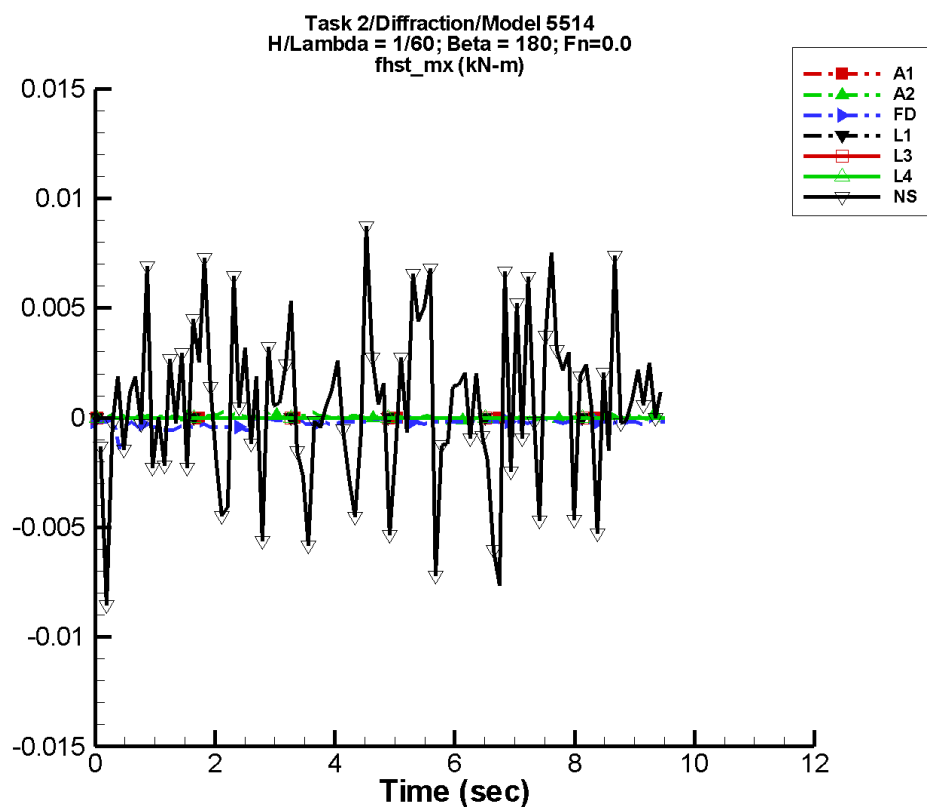
Table H-831. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.29E+04	2.01E+05	44	1.05E+05	-128
FD	-305.	2.40E+04	-149	3.48E+03	-153
L1	—	—	—	—	—
L3	114.	2.31E+04	-144	3.59E+03	-134
L4	114.	2.31E+04	-144	3.59E+03	-134
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-832. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	7.33E+03	9.12E+03	7.33E+03	9.12E+03
FD	-4.81E+04	3.44E+04	-3.96E+04	3.20E+04
L1	—	—	—	—
L3	-4.74E+04	3.35E+04	-4.27E+04	3.17E+04
L4	-4.74E+04	3.35E+04	-4.27E+04	3.17E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-417. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-833. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

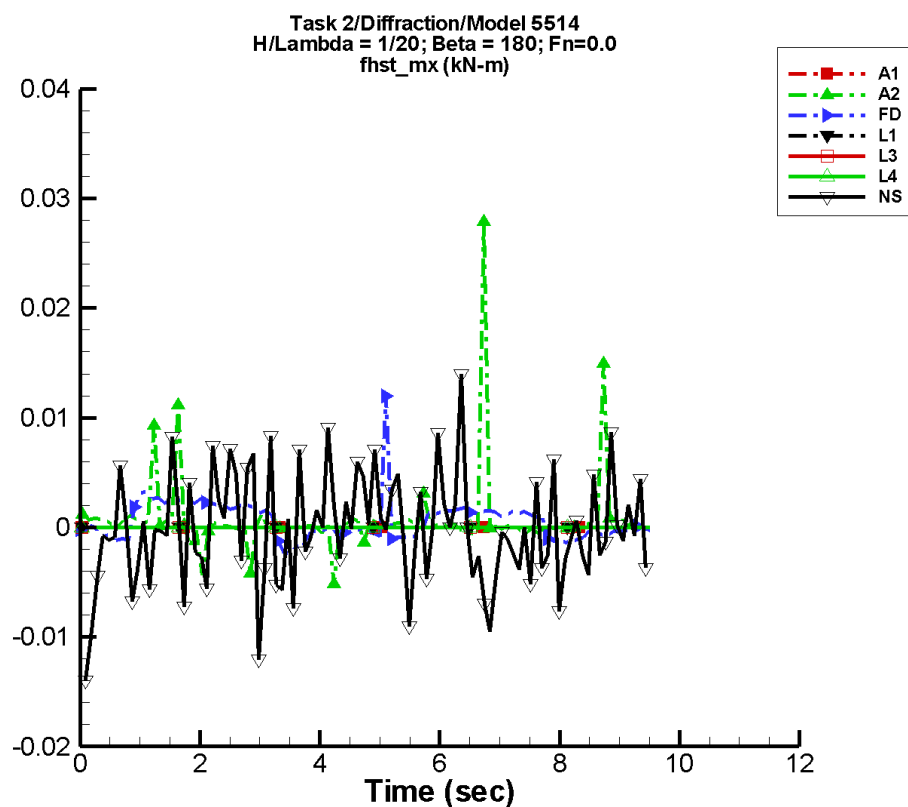
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.79E-05	6.26E-05	8	7.05E-05	166
FD	-2.36E-04	1.01E-04	-148	6.93E-05	159
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.98E-04	1.41E-04	152	1.93E-04	-92

Table H-834. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.67E-04	4.32E-04	-1.21E-04	1.25E-04
FD	-1.43E-03	7.32E-05	-4.63E-04	-1.18E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.55E-03	8.74E-03	-1.73E-03	2.32E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-418. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

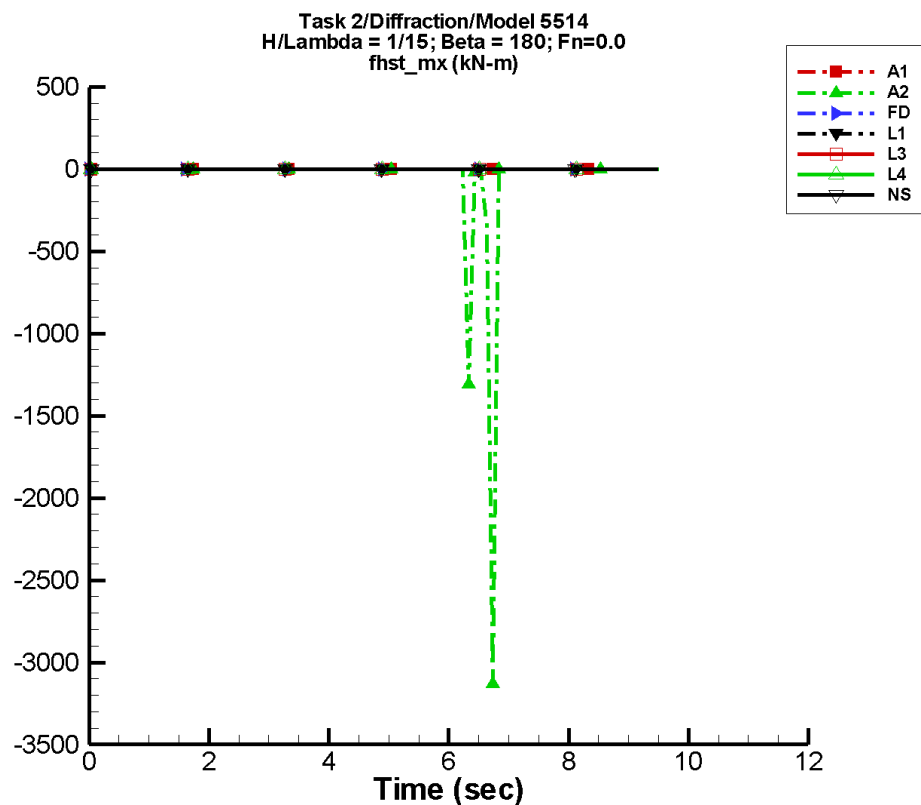
Table H-835. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-33.0	70.3	-102	80.5	-118
FD	5.25E-04	4.05E-04	-15	1.55E-03	-55
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.62E-04	1.86E-03	-73	1.76E-04	-175

Table H-836. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.60E+03	7.32	-745.	63.8
FD	-2.43E-03	1.19E-02	-1.14E-03	2.64E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.40E-02	1.40E-02	-9.65E-03	2.94E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-419. Time history of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

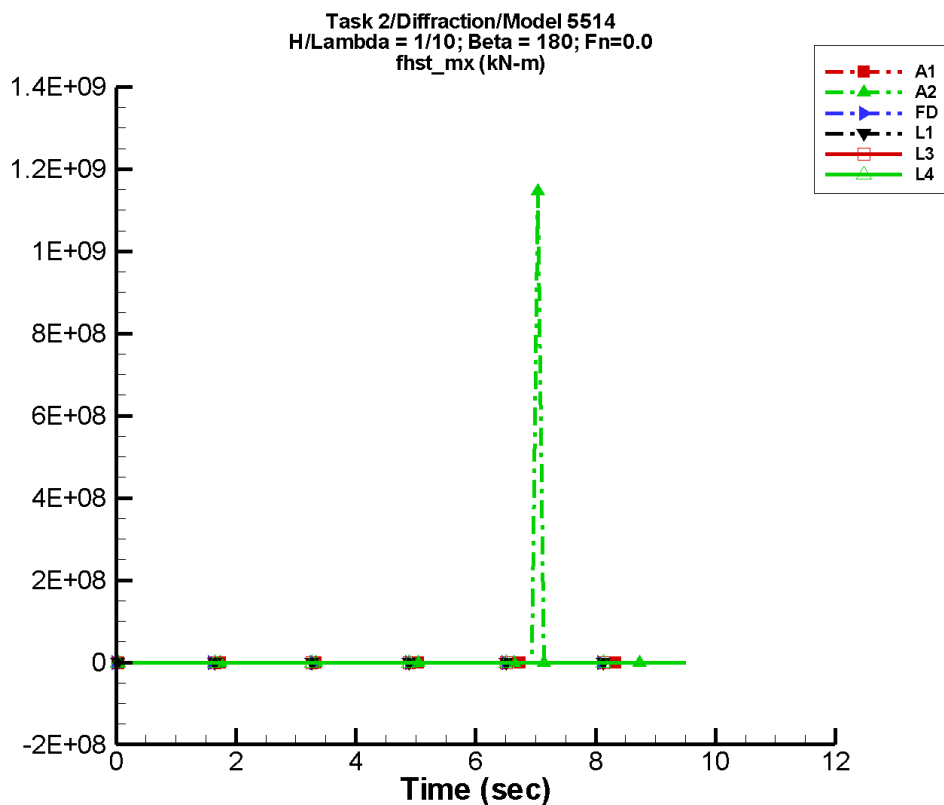
Table H-837. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-50.3	103.	13	90.8	122
FD	1.23E-03	2.07E-03	175	1.11E-03	-67
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-7.39E-04	1.85E-03	-120	1.44E-03	-61

Table H-838. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.13E+03	7.57E-02	-570.	35.9
FD	-1.91E-02	2.52E-02	-2.61E-03	5.71E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.76E-02	2.44E-02	-8.21E-03	3.97E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-420. Time history of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

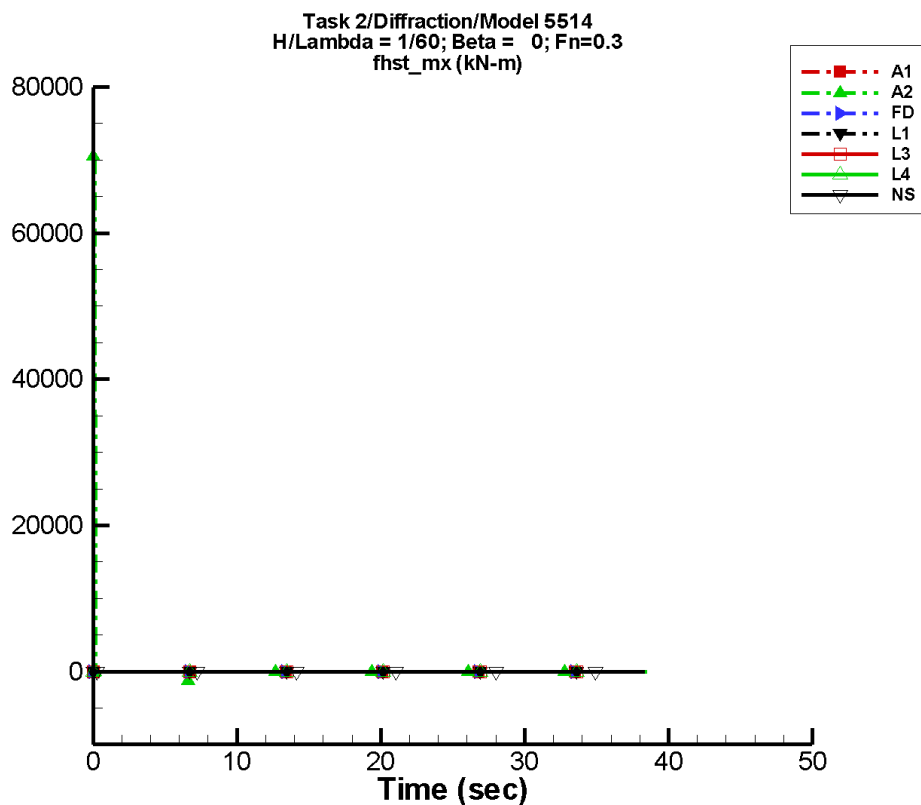
Table H-839. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.26E+07	2.41E+07	176	2.21E+07	-89
FD	7.92E-04	8.94E-04	-107	1.29E-03	32
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-840. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.34E+05	1.15E+09	-1.31E+07	1.53E+08
FD	-5.60E-03	4.74E-02	-1.38E-03	6.81E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-421. Time history of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-841. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

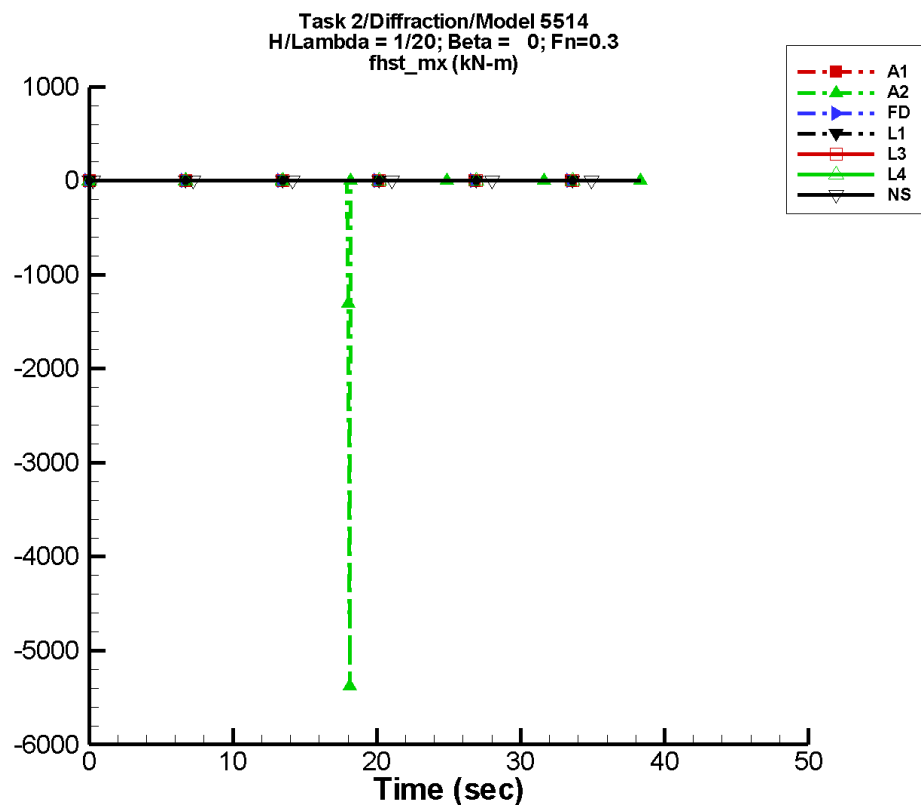
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.32	7.21	-152	8.63	151
FD	-1.01E-04	2.61E-05	-75	2.45E-05	-47
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.26E-04	1.31E-03	-176	7.67E-04	-90

Table H-842. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.31E+03	0.470	-174.	15.0
FD	-3.02E-04	-4.79E-05	-1.67E-04	-4.67E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.52E-03	7.74E-03	-3.23E-03	3.57E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-422. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

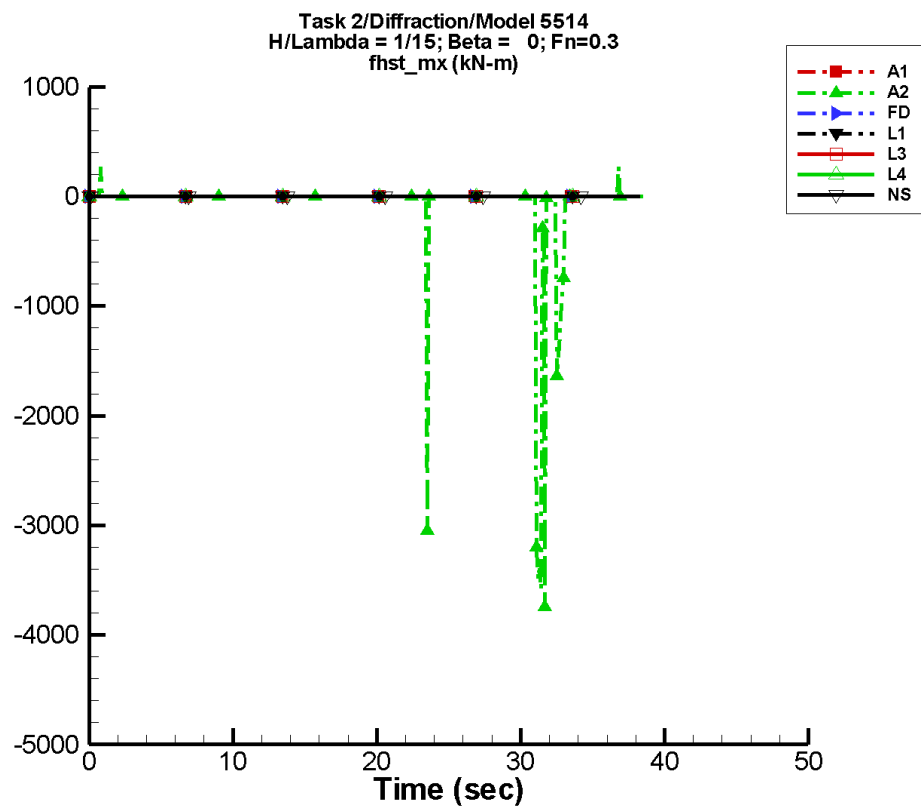
Table H-843. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-18.4	34.9	111	31.3	-59
FD	-1.17E-04	3.48E-05	-10	4.54E-05	175
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.58E-04	2.57E-04	-142	1.04E-03	66

Table H-844. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.38E+03	7.61	-885.	74.7
FD	-4.96E-04	2.02E-04	-2.45E-04	9.77E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.40E-02	1.16E-02	-3.50E-03	3.84E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-423. Time history of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

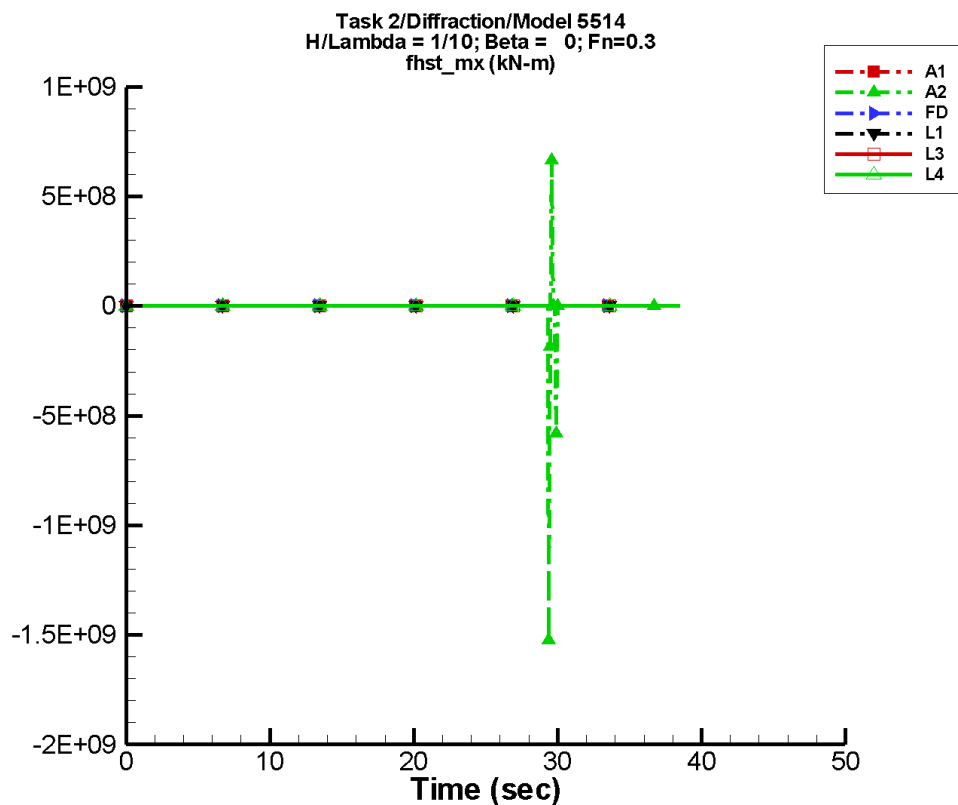
Table H-845. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-76.0	131.	-17	109.	55
FD	-9.40E-05	4.87E-05	-101	1.22E-04	-102
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.89E-04	2.23E-03	107	1.43E-03	130

Table H-846. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.74E+03	268.	-2.05E+03	98.8
FD	-6.14E-04	3.23E-04	-4.11E-04	1.58E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.69E-02	2.01E-02	-5.90E-03	6.74E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-424. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

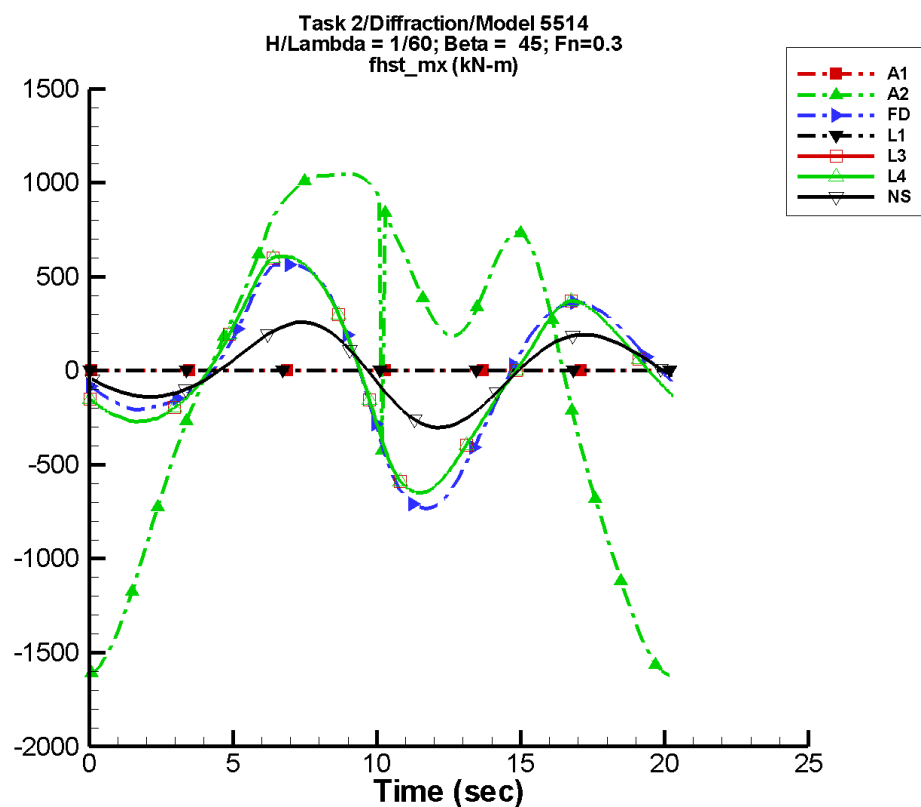
Table H-847. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-4.40E+06	8.57E+06	-5	7.50E+06	91
FD	7.47E-05	1.89E-04	-49	2.53E-04	180
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-848. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.52E+09	6.65E+08	-1.75E+08	1.31E+07
FD	-8.62E-04	1.51E-03	-6.72E-04	1.35E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-425. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-849. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

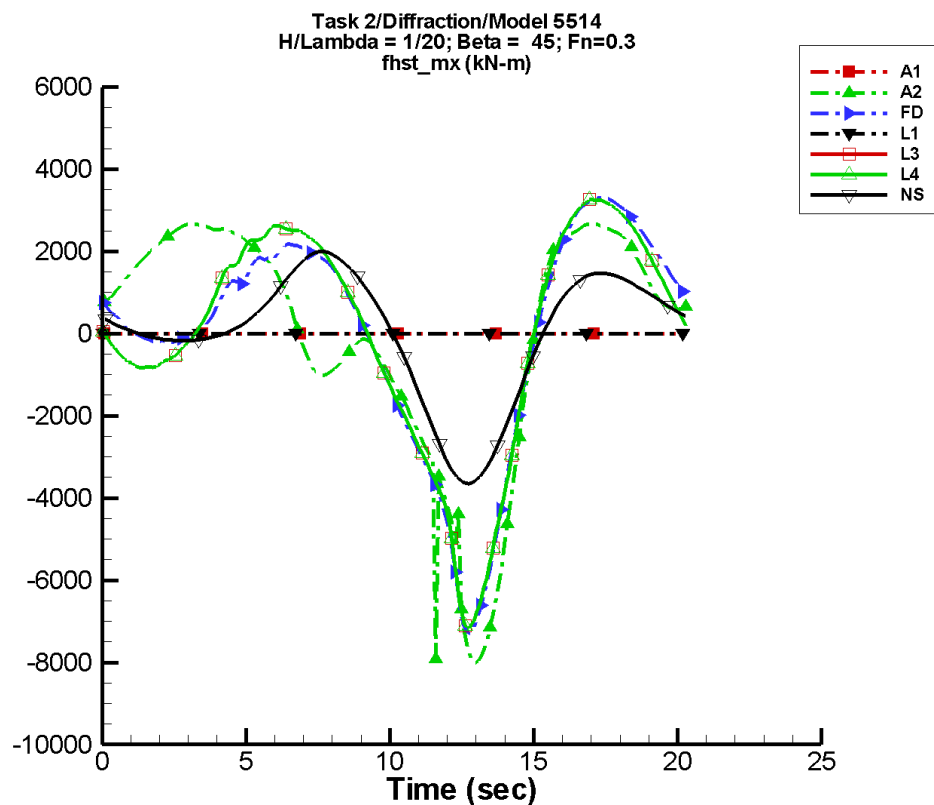
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-0.899	1.07E+03	-93	443.	-125
FD	7.34	181.	30	457.	-177
L1	—	—	—	—	—
L3	7.02	140.	17	462.	-161
L4	7.02	140.	17	462.	-161
NF	—	—	—	—	—
NS	0.821	53.1	35	217.	-167

Table H-850. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.62E+03	1.05E+03	-1.61E+03	1.05E+03
FD	-733.	565.	-726.	565.
L1	—	—	—	—
L3	-649.	611.	-647.	608.
L4	-649.	611.	-647.	608.
NF	—	—	—	—
NS	-303.	258.	-290.	247.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-426. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

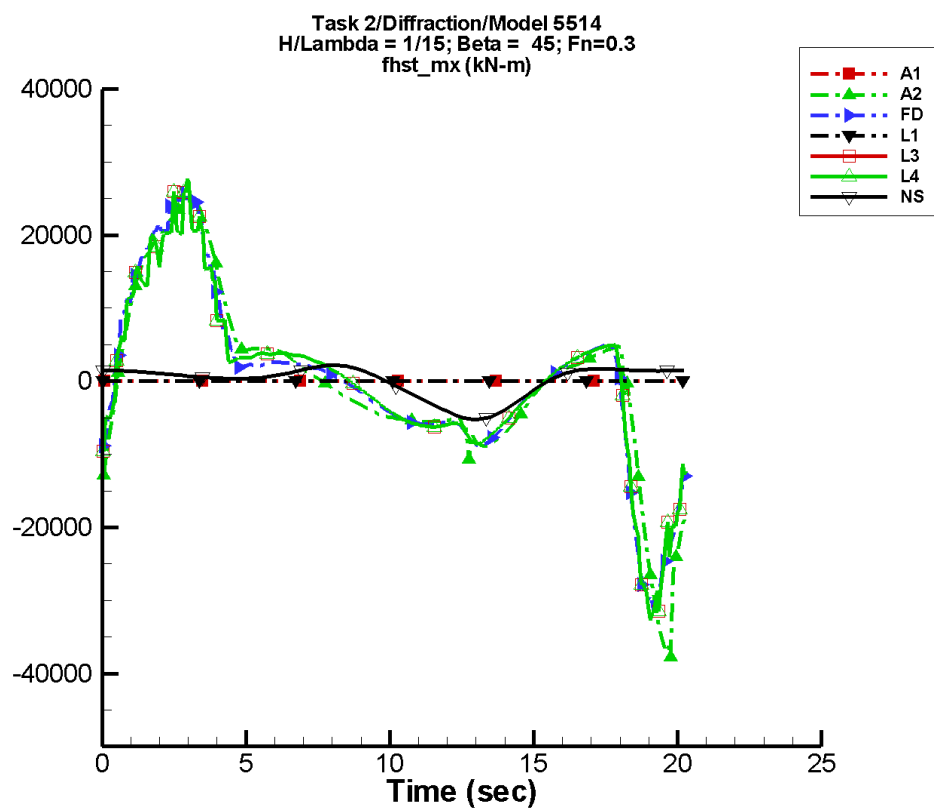
Table H-851. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	27.0	3.13E+03	49	1.56E+03	-170
FD	16.3	2.18E+03	48	2.81E+03	169
L1	—	—	—	—	—
L3	2.46	1.92E+03	49	2.90E+03	-169
L4	2.46	1.92E+03	49	2.90E+03	-169
NF	—	—	—	—	—
NS	35.0	1.06E+03	39	1.67E+03	177

Table H-852. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-8.00E+03	2.67E+03	-7.80E+03	2.64E+03
FD	-7.30E+03	3.30E+03	-7.01E+03	3.27E+03
L1	—	—	—	—
L3	-7.17E+03	3.26E+03	-7.06E+03	3.25E+03
L4	-7.17E+03	3.26E+03	-7.06E+03	3.25E+03
NF	—	—	—	—
NS	-3.65E+03	2.00E+03	-3.43E+03	1.89E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-427. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

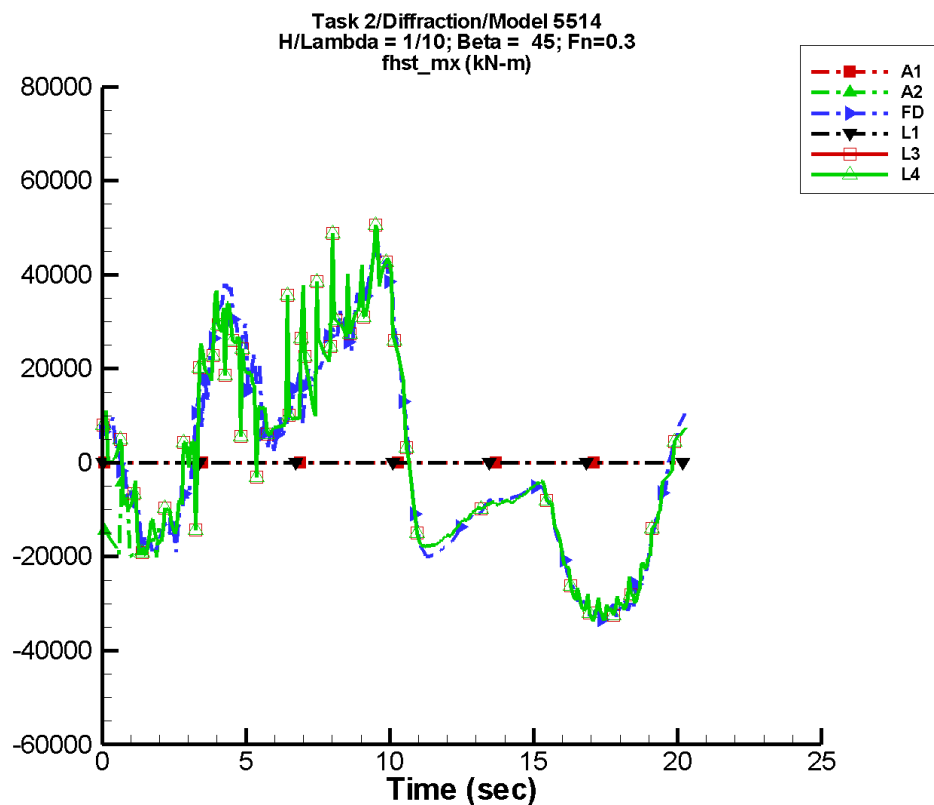
Table H-853. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.34	8.44E+03	13	8.16E+03	-59
FD	628.	9.25E+03	10	8.36E+03	-58
L1	—	—	—	—	—
L3	565.	8.14E+03	12	6.55E+03	-38
L4	565.	8.14E+03	12	6.55E+03	-38
NF	—	—	—	—	—
NS	47.5	2.08E+03	47	1.88E+03	167

Table H-854. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.81E+04	2.52E+04	-3.28E+04	2.45E+04
FD	-3.13E+04	2.67E+04	-2.88E+04	2.53E+04
L1	—	—	—	—
L3	-3.27E+04	2.77E+04	-3.09E+04	2.37E+04
L4	-3.27E+04	2.77E+04	-3.09E+04	2.37E+04
NF	—	—	—	—
NS	-5.23E+03	2.19E+03	-5.06E+03	2.10E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-428. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

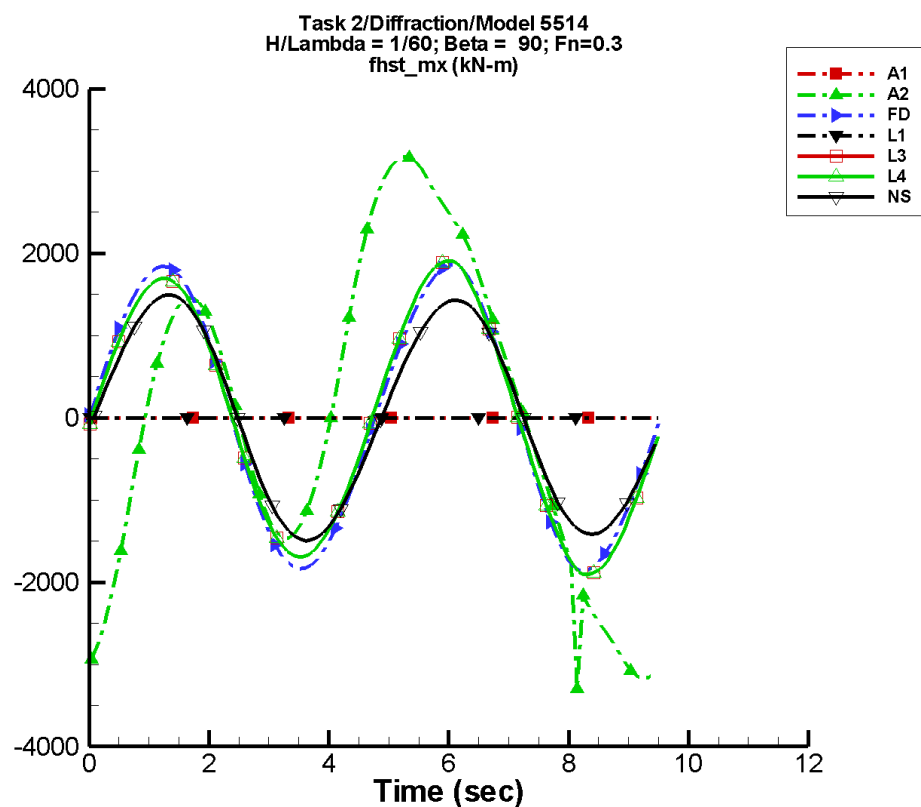
Table H-855. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.48E+05	2.27E+05	-77	8.77E+04	120
FD	-338.	2.25E+04	-47	5.15E+03	132
L1	—	—	—	—	—
L3	568.	2.36E+04	-41	4.64E+03	127
L4	568.	2.36E+04	-41	4.64E+03	127
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-856. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.04E+04	3.99E+04	-1.83E+04	3.20E+04
FD	-3.34E+04	4.67E+04	-3.21E+04	4.26E+04
L1	—	—	—	—
L3	-3.38E+04	5.19E+04	-3.18E+04	4.35E+04
L4	-3.38E+04	5.19E+04	-3.18E+04	4.35E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-429. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–857. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

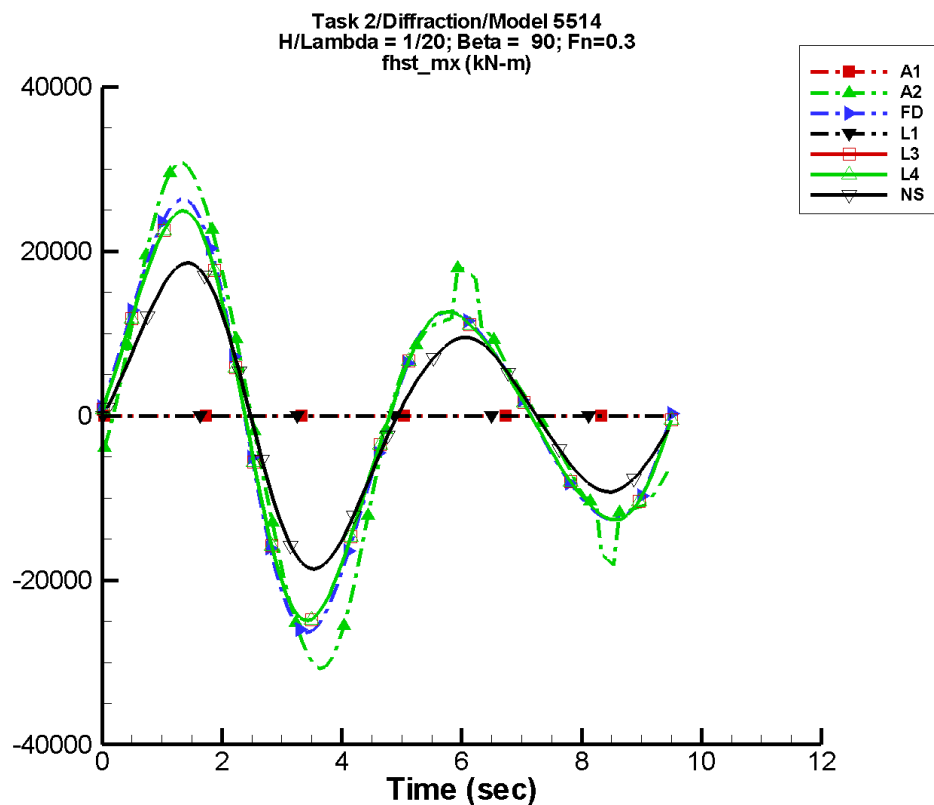
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-10.6	1.95E+03	-96	1.82E+03	-22
FD	-1.30	9.19	87	1.83E+03	-11
L1	—	—	—	—	—
L3	0.772	120.	-95	1.78E+03	-7
L4	0.772	120.	-95	1.78E+03	-7
NF	—	—	—	—	—
NS	1.36	34.0	85	1.46E+03	-8

Table H–858. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.30E+03	3.17E+03	-3.06E+03	3.06E+03
FD	-1.87E+03	1.86E+03	-1.77E+03	1.77E+03
L1	—	—	—	—
L3	-1.91E+03	1.90E+03	-1.88E+03	1.88E+03
L4	-1.91E+03	1.90E+03	-1.88E+03	1.88E+03
NF	—	—	—	—
NS	-1.50E+03	1.49E+03	-1.44E+03	1.44E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-430. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

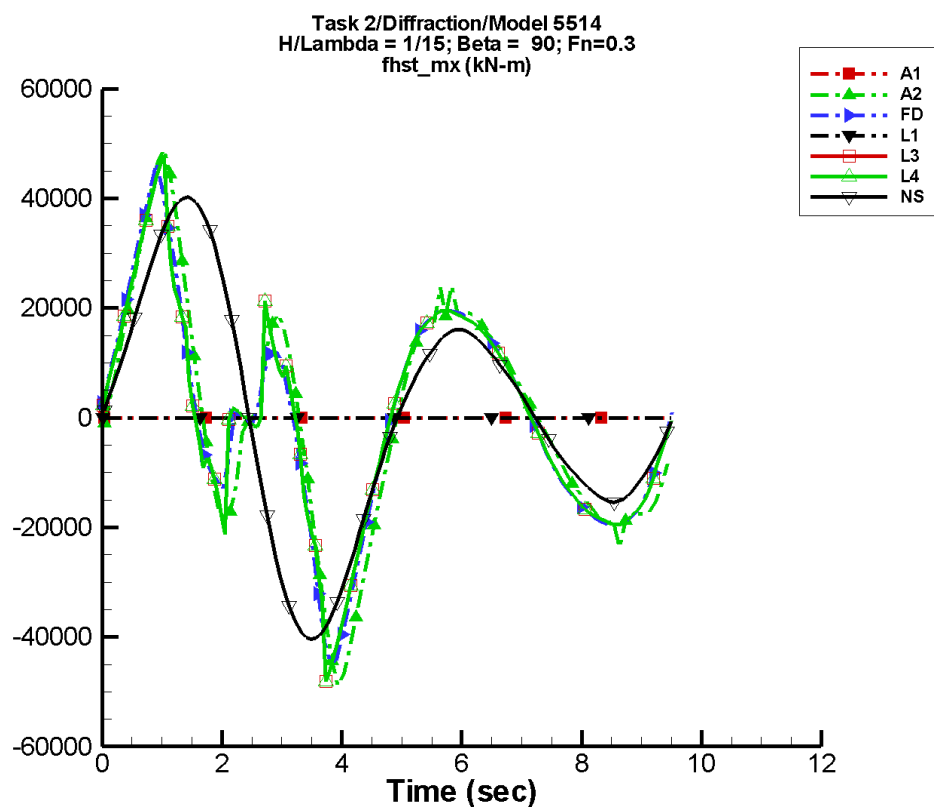
Table H-859. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-385.	3.98E+03	75	2.22E+04	-23
FD	-164.	4.97E+03	85	1.99E+04	-12
L1	—	—	—	—	—
L3	-60.7	4.30E+03	84	1.85E+04	-6
L4	-60.7	4.30E+03	84	1.85E+04	-6
NF	—	—	—	—	—
NS	86.1	3.55E+03	82	1.39E+04	-10

Table H-860. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.96E+04	3.08E+04	-2.89E+04	2.94E+04
FD	-2.64E+04	2.63E+04	-2.49E+04	2.50E+04
L1	—	—	—	—
L3	-2.49E+04	2.49E+04	-2.44E+04	2.44E+04
L4	-2.49E+04	2.49E+04	-2.44E+04	2.44E+04
NF	—	—	—	—
NS	-1.87E+04	1.86E+04	-1.78E+04	1.78E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-431. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

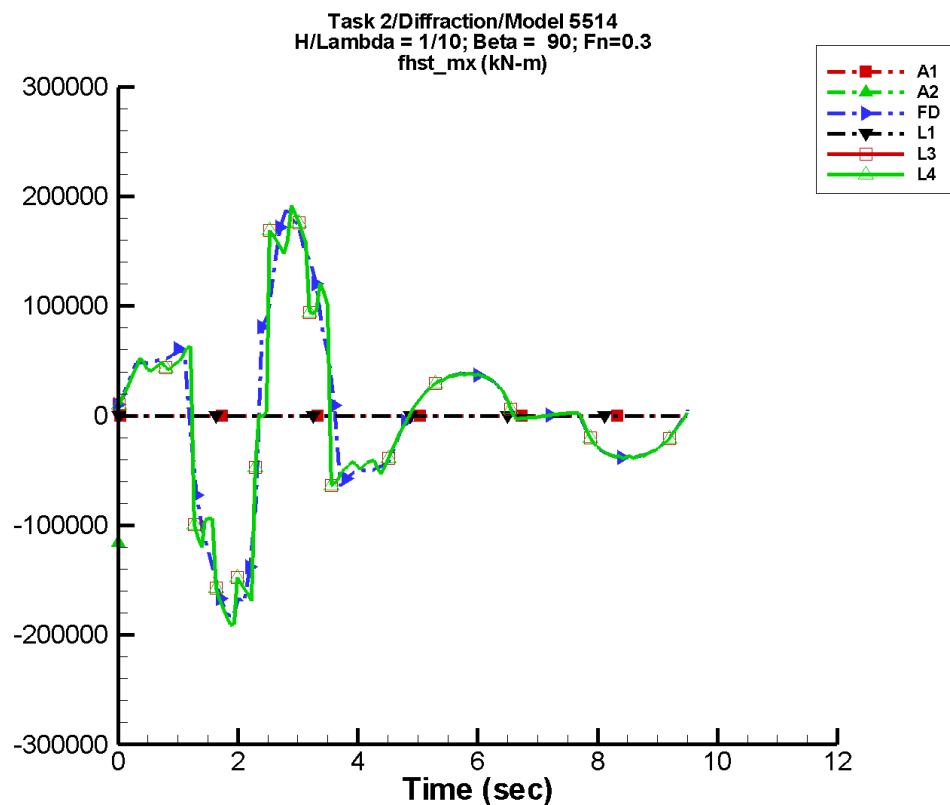
Table H-861. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	108.	5.32E+03	89	2.31E+04	-12
FD	125.	5.24E+03	84	2.08E+04	-11
L1	—	—	—	—	—
L3	343.	4.04E+03	90	2.06E+04	-6
L4	343.	4.04E+03	90	2.06E+04	-6
NF	—	—	—	—	—
NS	214.	9.30E+03	82	2.78E+04	-9

Table H-862. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.89E+04	4.89E+04	-3.92E+04	3.93E+04
FD	-4.61E+04	4.64E+04	-3.71E+04	3.59E+04
L1	—	—	—	—
L3	-4.81E+04	4.79E+04	-3.98E+04	3.97E+04
L4	-4.81E+04	4.79E+04	-3.98E+04	3.97E+04
NF	—	—	—	—
NS	-4.04E+04	4.02E+04	-3.92E+04	3.91E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-432. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

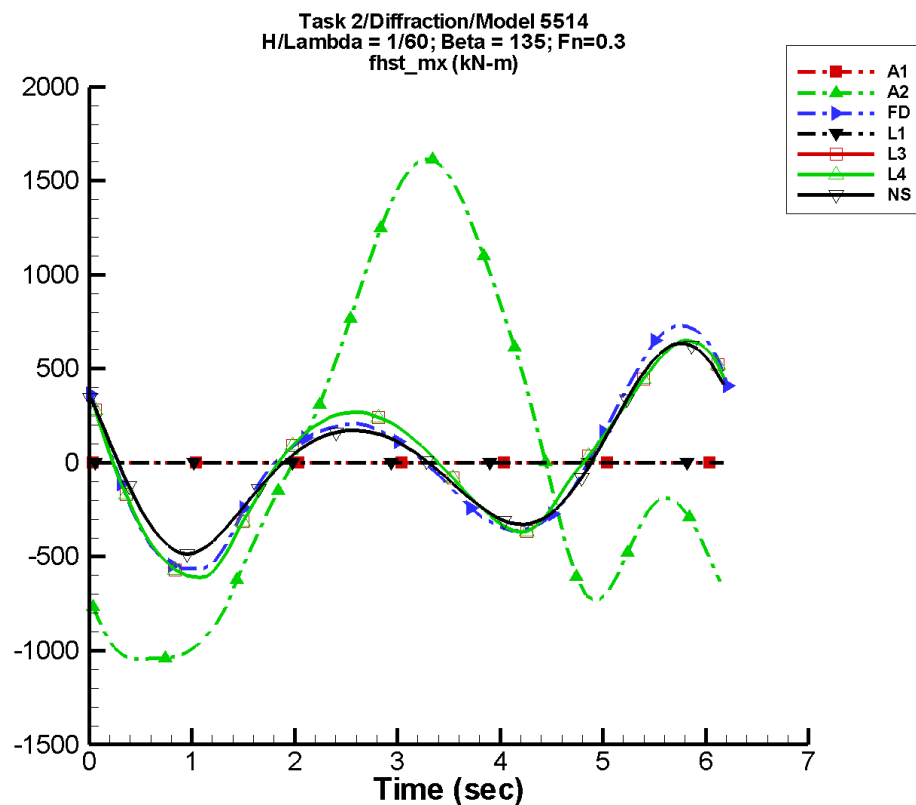
Table H-863. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.50E+05	3.43E+05	-17	2.83E+05	165
FD	2.39E+03	1.39E+04	-92	2.12E+04	157
L1	—	—	—	—	—
L3	2.00E+03	1.51E+04	-110	1.18E+04	165
L4	2.00E+03	1.51E+04	-110	1.18E+04	165
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-864. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.59E+05	-1.16E+05	-1.59E+05	-1.16E+05
FD	-1.87E+05	1.88E+05	-1.58E+05	1.58E+05
L1	—	—	—	—
L3	-1.98E+05	1.92E+05	-1.73E+05	1.69E+05
L4	-1.98E+05	1.92E+05	-1.73E+05	1.69E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-433. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-865. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

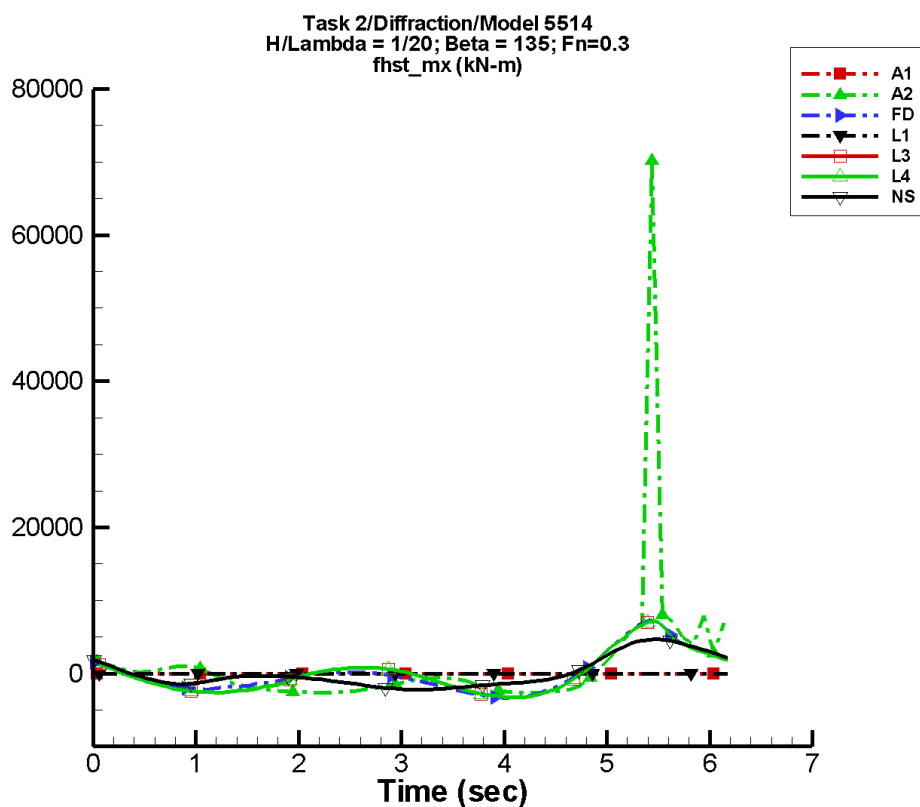
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-10.1	1.13E+03	-110	426.	83
FD	-2.87	163.	123	456.	112
L1	—	—	—	—	—
L3	-4.97	142.	153	472.	132
L4	-4.97	142.	153	472.	132
NF	—	—	—	—	—
NS	-1.87	143.	138	408.	150

Table H-866. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.05E+03	1.61E+03	-1.03E+03	1.51E+03
FD	-564.	729.	-521.	658.
L1	—	—	—	—
L3	-609.	649.	-589.	625.
L4	-609.	649.	-589.	625.
NF	—	—	—	—
NS	-486.	635.	-461.	610.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-434. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

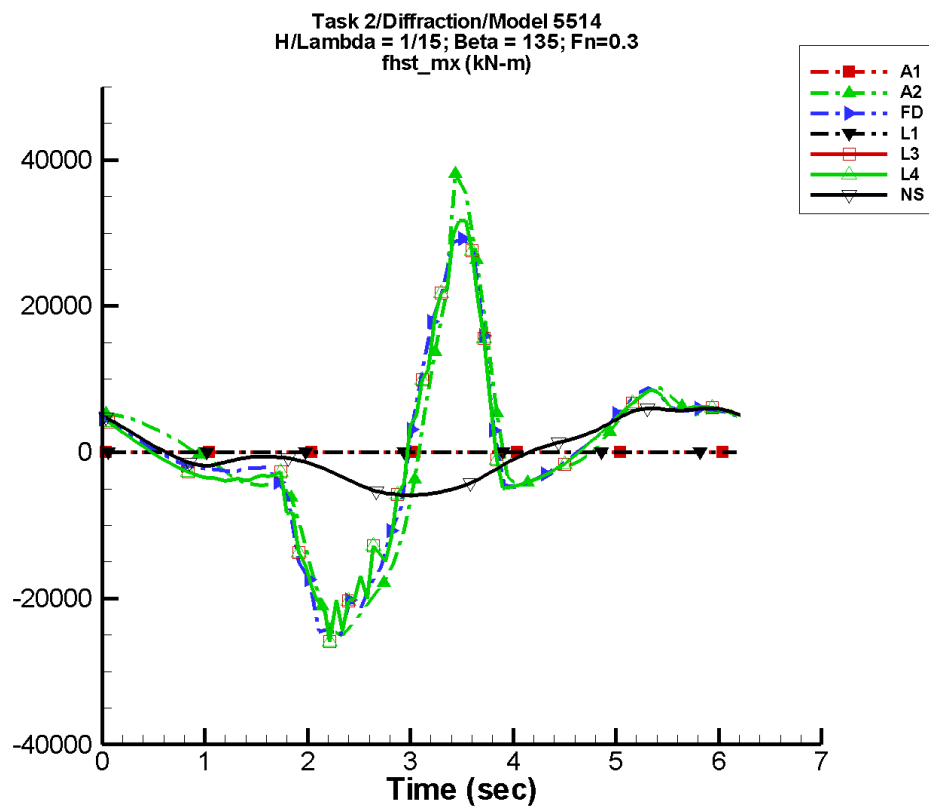
Table H-867. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.12E+03	4.87E+03	113	3.30E+03	155
FD	-51.3	2.04E+03	96	2.74E+03	122
L1	—	—	—	—	—
L3	2.99	1.89E+03	116	2.98E+03	142
L4	2.99	1.89E+03	116	2.98E+03	142
NF	—	—	—	—	—
NS	14.6	2.26E+03	118	1.62E+03	-176

Table H-868. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.66E+03	7.02E+04	-2.97E+03	1.44E+04
FD	-3.30E+03	7.26E+03	-3.02E+03	5.47E+03
L1	—	—	—	—
L3	-3.25E+03	7.17E+03	-3.15E+03	6.22E+03
L4	-3.25E+03	7.17E+03	-3.15E+03	6.22E+03
NF	—	—	—	—
NS	-2.20E+03	4.66E+03	-2.15E+03	4.46E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-435. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

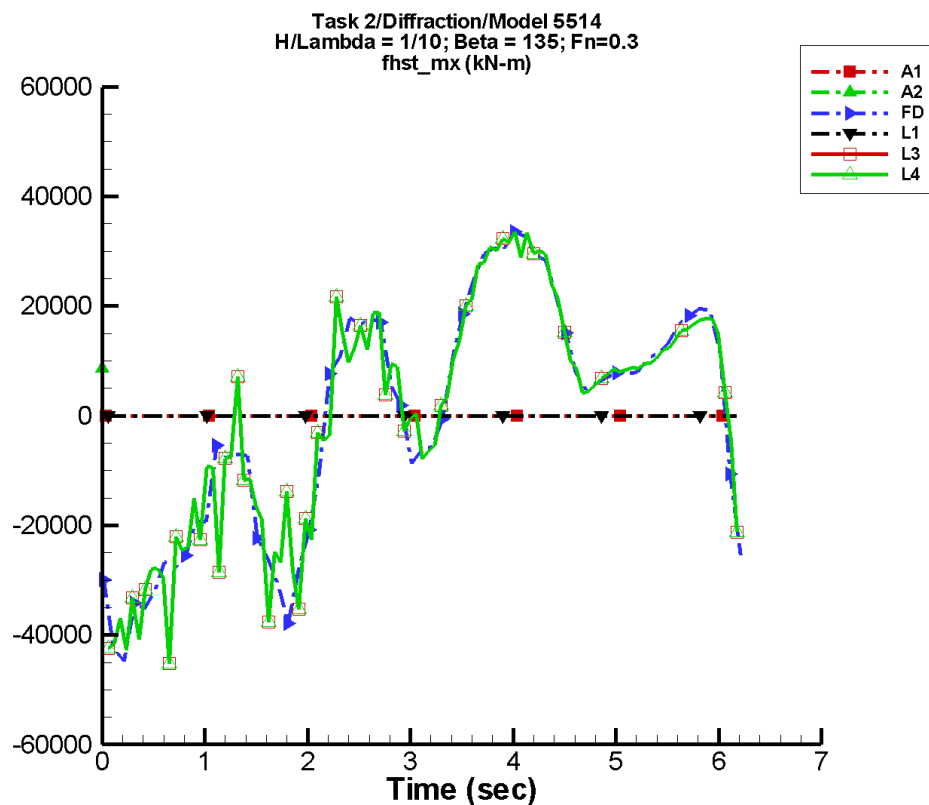
Table H-869. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-141.	8.28E+03	154	7.91E+03	19
FD	-629.	7.03E+03	145	8.54E+03	-5
L1	—	—	—	—	—
L3	-353.	8.12E+03	162	6.61E+03	29
L4	-353.	8.12E+03	162	6.61E+03	29
NF	—	—	—	—	—
NS	21.8	5.07E+03	117	1.66E+03	-156

Table H-870. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.50E+04	3.81E+04	-2.16E+04	1.92E+04
FD	-2.52E+04	2.93E+04	-2.12E+04	1.83E+04
L1	—	—	—	—
L3	-2.59E+04	3.17E+04	-2.14E+04	2.50E+04
L4	-2.59E+04	3.17E+04	-2.14E+04	2.50E+04
NF	—	—	—	—
NS	-5.91E+03	6.03E+03	-5.83E+03	5.90E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-436. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

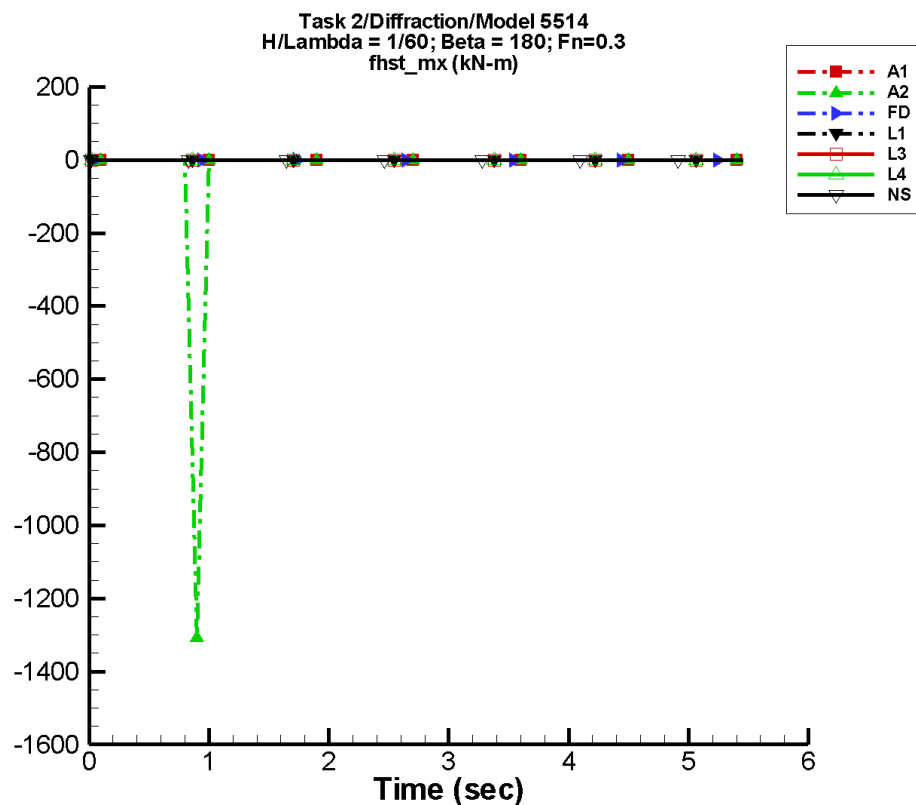
Table H-871. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.75E+03	4.96E+03	-76	1.34E+04	109
FD	-583.	2.43E+04	-165	4.59E+03	-159
L1	—	—	—	—	—
L3	-696.	2.43E+04	-152	5.34E+03	-159
L4	-696.	2.43E+04	-152	5.34E+03	-159
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-872. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	6.42E+03	8.67E+03	6.42E+03	8.67E+03
FD	-4.66E+04	3.44E+04	-3.53E+04	3.02E+04
L1	—	—	—	—
L3	-4.97E+04	3.35E+04	-4.13E+04	3.17E+04
L4	-4.97E+04	3.35E+04	-4.13E+04	3.17E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-437. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-873. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

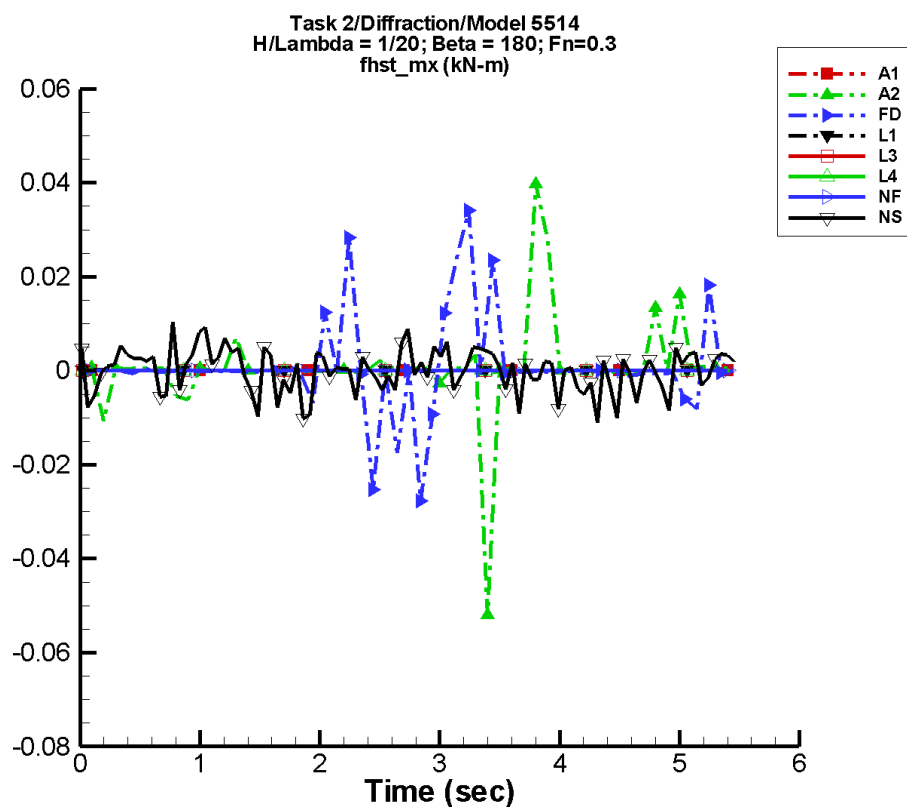
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-16.0	33.9	-152	38.5	150
FD	-4.17E-03	7.27E-03	-53	6.66E-03	-31
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.11E-04	3.40E-04	-157	1.90E-04	166

Table H-874. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.31E+03	9.21E-04	-174.	15.0
FD	-3.13E-02	1.19E-02	-2.12E-02	3.16E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.20E-02	8.95E-03	-1.76E-03	1.94E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-438. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

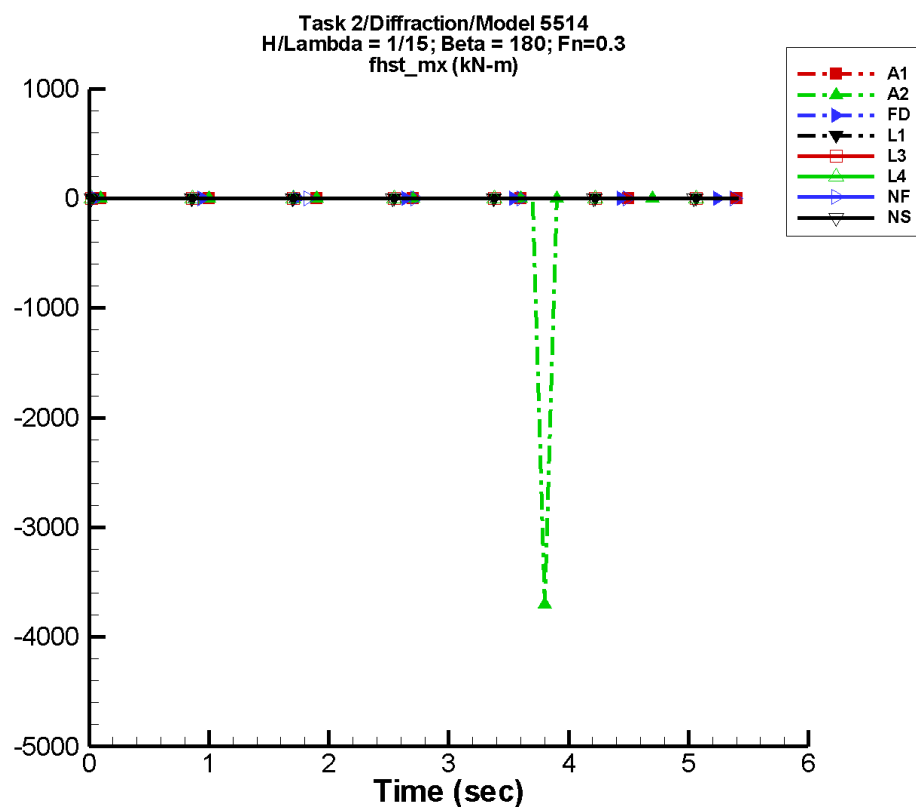
Table H-875. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.09E-03	2.06E-03	141	2.21E-03	-114
FD	-8.27E-04	3.21E-03	-111	6.20E-03	153
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.98E-04	9.76E-04	-16	1.55E-03	28

Table H-876. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.20E-02	3.97E-02	-4.74E-03	6.81E-03
FD	-7.25E-02	4.60E-02	-2.69E-02	1.68E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.10E-02	1.04E-02	-3.77E-03	4.36E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-439. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

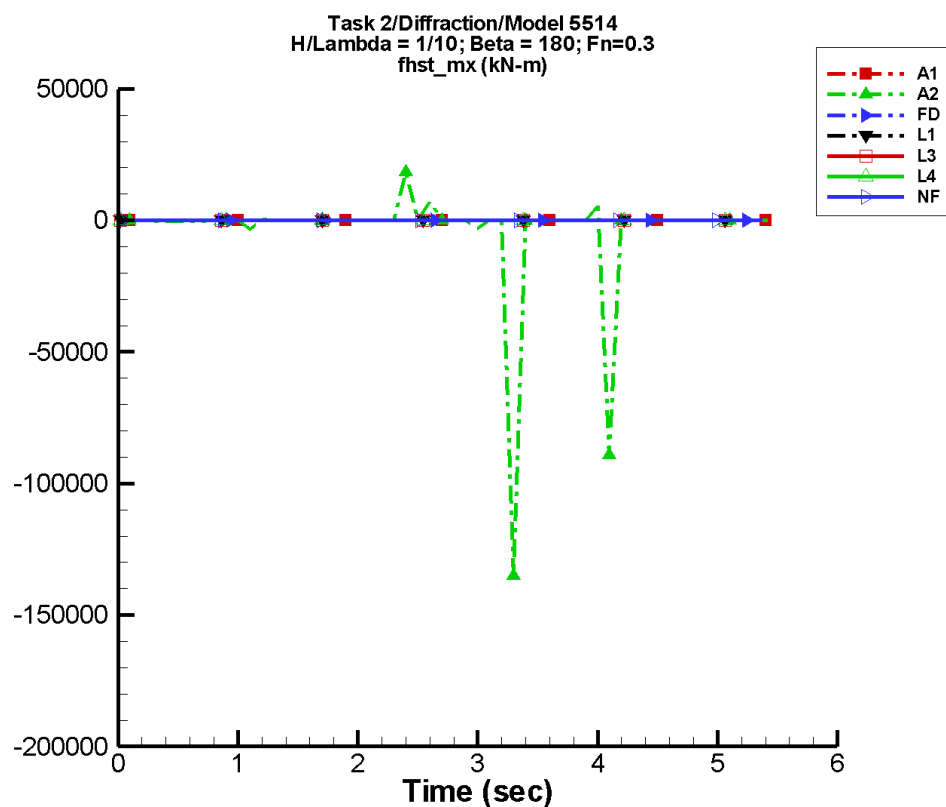
Table H-877. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-69.2	137.	25	131.	143
FD	-1.73E-03	1.04E-02	-116	1.89E-02	144
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-7.11E-04	1.91E-03	-105	6.96E-04	73

Table H-878. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.70E+03	0.128	-497.	42.6
FD	-0.126	0.132	-4.60E-02	2.90E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.96E-02	1.28E-02	-5.80E-03	4.52E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-440. Time history of  $M_x^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

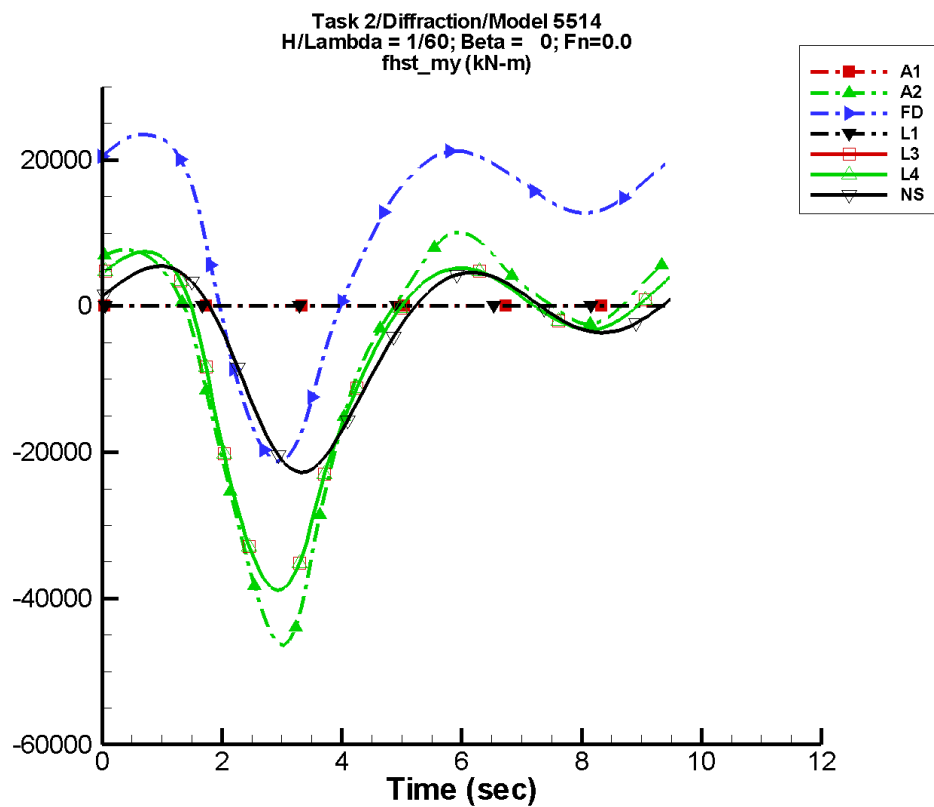
Table H-879. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.57E+03	7.16E+03	32	5.72E+03	168
FD	0.185	0.438	-163	0.406	-55
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-880. Minimum and maximum of  $M_x^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.35E+05	1.85E+04	-1.78E+04	4.72E+03
FD	-0.442	21.4	-0.314	2.86
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-441. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-881. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

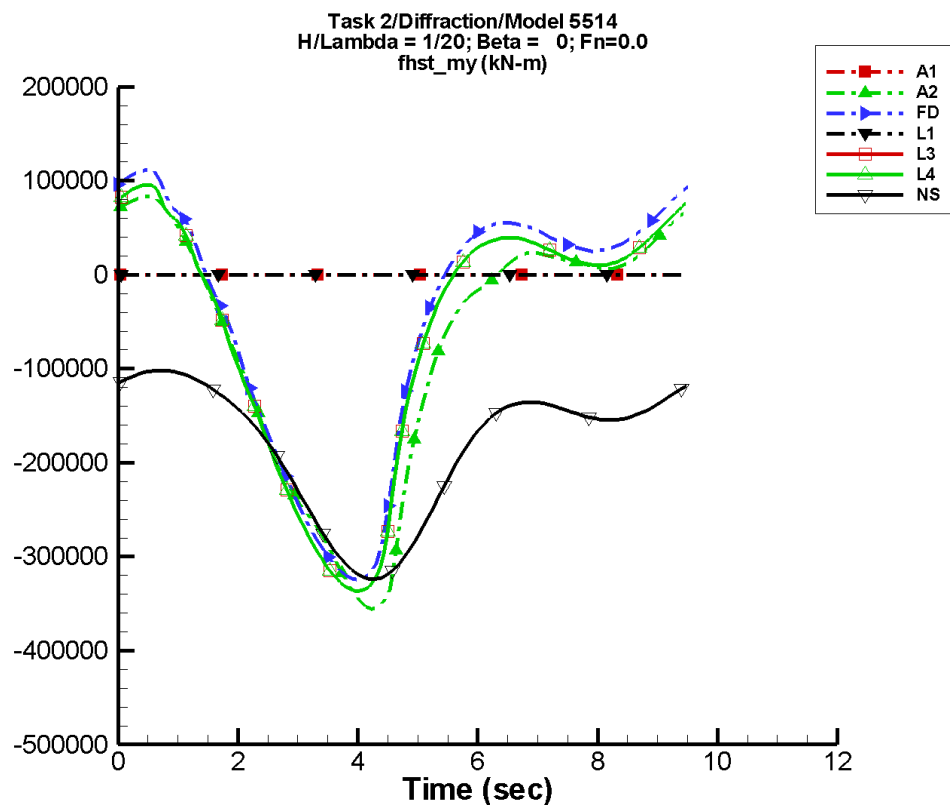
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.83E+03	1.64E+04	154	1.52E+04	28
FD	1.03E+04	1.30E+04	148	1.36E+04	27
L1	—	—	—	—	—
L3	-6.37E+03	1.41E+04	149	1.40E+04	29
L4	-6.37E+03	1.41E+04	149	1.40E+04	29
NF	—	—	—	—	—
NS	-3.72E+03	7.66E+03	139	8.96E+03	7

Table H-882. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.64E+04	1.01E+04	-4.39E+04	9.49E+03
FD	-2.12E+04	2.35E+04	-1.98E+04	2.32E+04
L1	—	—	—	—
L3	-3.89E+04	7.44E+03	-3.86E+04	7.31E+03
L4	-3.89E+04	7.44E+03	-3.86E+04	7.31E+03
NF	—	—	—	—
NS	-2.28E+04	5.47E+03	-2.20E+04	5.17E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-442. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

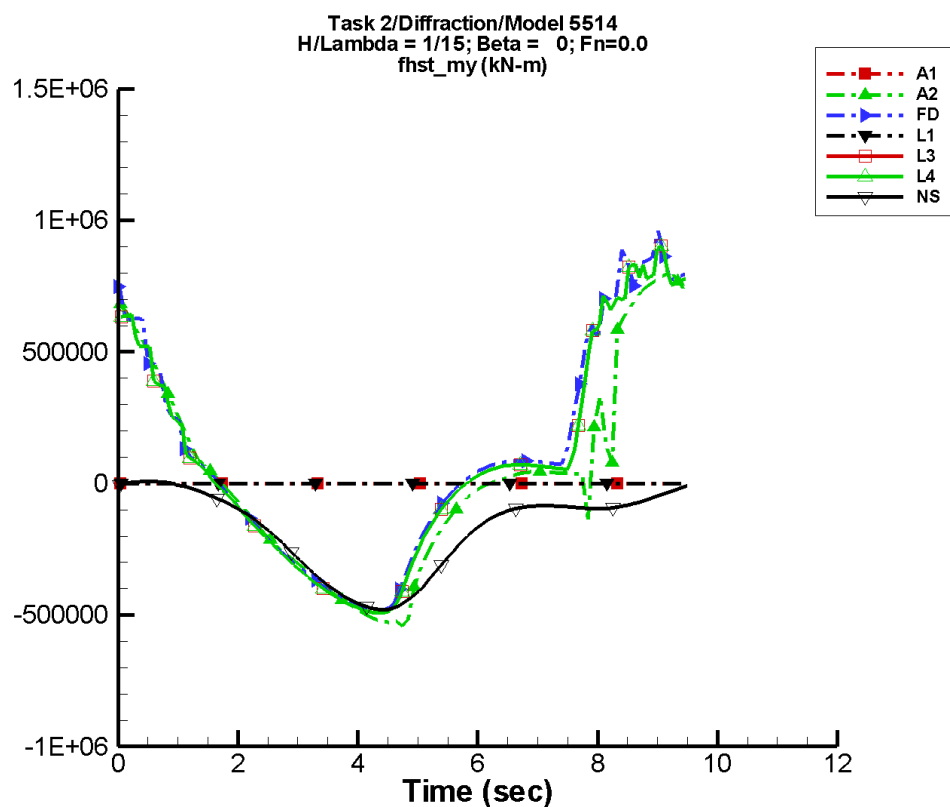
Table H–883. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.40E+04	1.71E+05	119	8.14E+04	-14
FD	-4.53E+04	1.66E+05	125	9.43E+04	-7
L1	—	—	—	—	—
L3	-5.86E+04	1.62E+05	127	9.25E+04	-3
L4	-5.86E+04	1.62E+05	127	9.25E+04	-3
NF	—	—	—	—	—
NS	-1.81E+05	8.40E+04	105	4.79E+04	-34

Table H–884. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.56E+05	8.36E+04	-3.44E+05	7.88E+04
FD	-3.25E+05	1.12E+05	-3.24E+05	1.08E+05
L1	—	—	—	—
L3	-3.36E+05	9.58E+04	-3.35E+05	9.30E+04
L4	-3.36E+05	9.58E+04	-3.35E+05	9.30E+04
NF	—	—	—	—
NS	-3.24E+05	-1.02E+05	-3.20E+05	-1.03E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-443. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

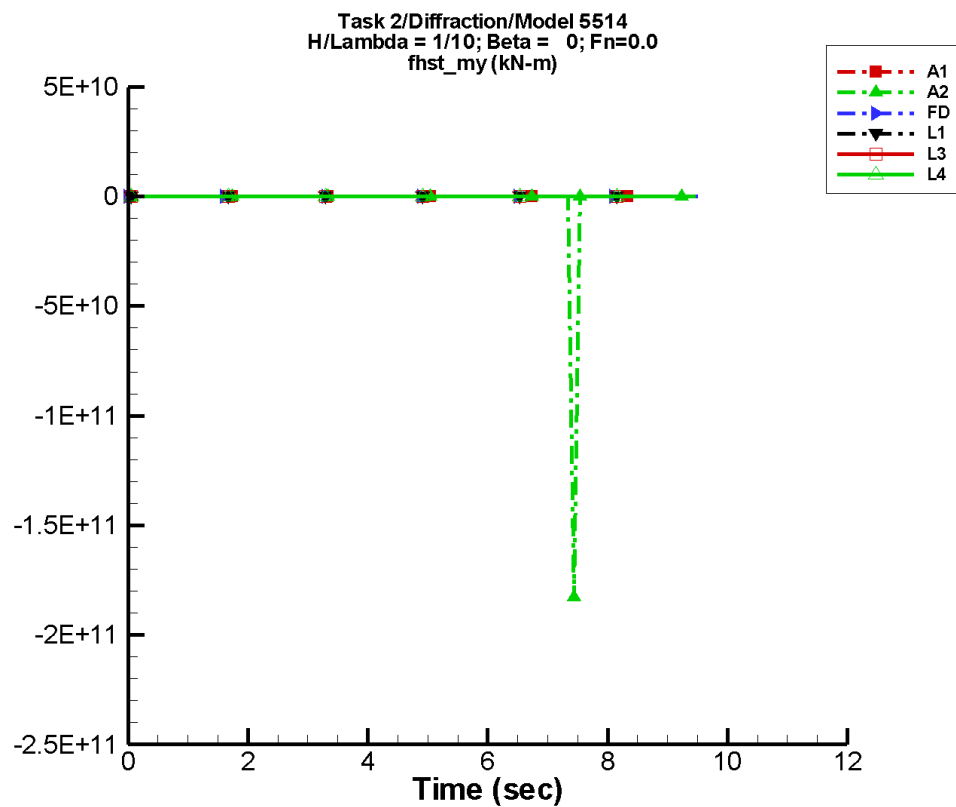
Table H–885. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	2.92E+04	5.03E+05	105	1.19E+05	70
FD	1.00E+05	5.54E+05	112	9.76E+04	102
L1	—	—	—	—	—
L3	8.49E+04	5.35E+05	113	1.03E+05	103
L4	8.49E+04	5.35E+05	113	1.03E+05	103
NF	—	—	—	—	—
NS	-1.73E+05	1.99E+05	103	8.76E+04	-36

Table H–886. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.42E+05	8.02E+05	-5.17E+05	7.71E+05
FD	-4.79E+05	9.59E+05	-4.75E+05	8.45E+05
L1	—	—	—	—
L3	-4.92E+05	9.02E+05	-4.90E+05	8.31E+05
L4	-4.92E+05	9.02E+05	-4.90E+05	8.31E+05
NF	—	—	—	—
NS	-4.80E+05	7.76E+03	-4.75E+05	6.11E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-444. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

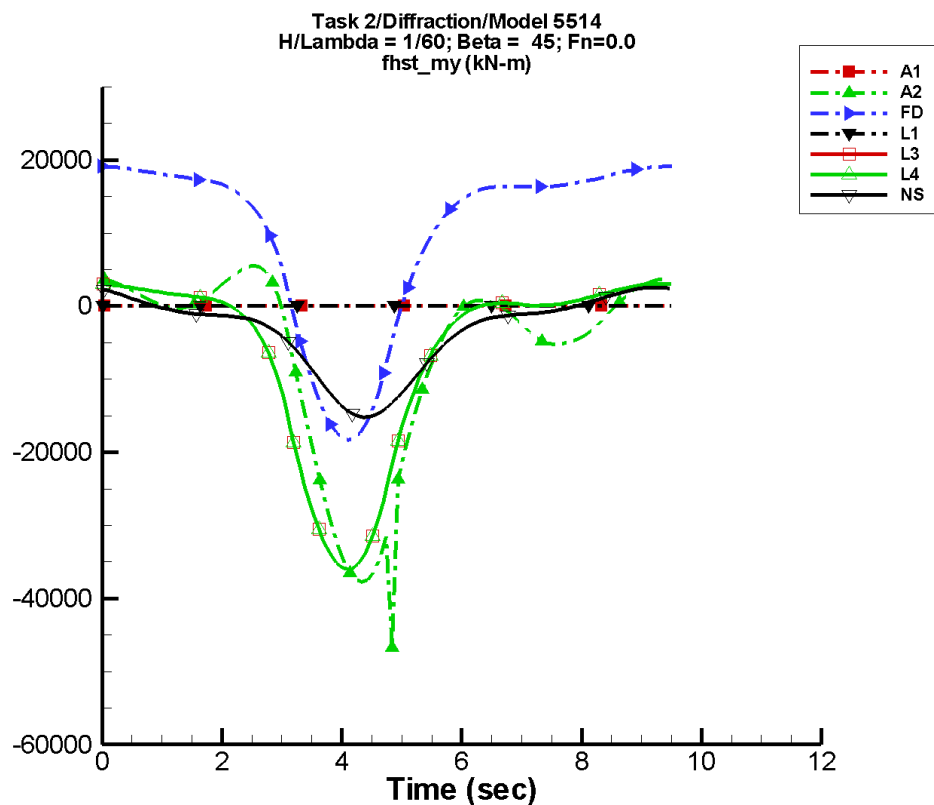
Table H-887. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.07E+09	3.79E+09	-20	3.55E+09	61
FD	3.84E+05	1.64E+06	110	1.20E+05	-117
L1	—	—	—	—	—
L3	3.44E+05	1.65E+06	111	1.19E+05	-107
L4	3.44E+05	1.65E+06	111	1.19E+05	-107
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-888. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.83E+11	2.57E+06	-2.44E+10	2.09E+09
FD	-1.43E+06	2.10E+06	-1.39E+06	1.95E+06
L1	—	—	—	—
L3	-1.59E+06	2.04E+06	-1.43E+06	1.95E+06
L4	-1.59E+06	2.04E+06	-1.43E+06	1.95E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-445. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–889. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

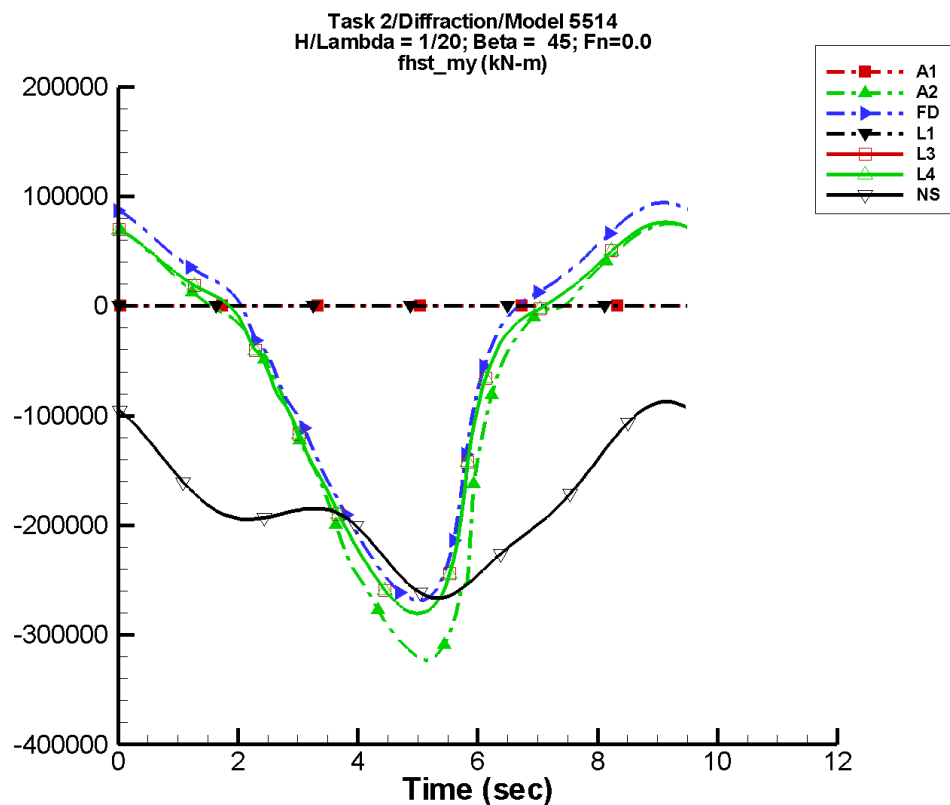
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.59E+03	1.20E+04	94	8.42E+03	-65
FD	9.96E+03	1.33E+04	106	8.66E+03	-55
L1	—	—	—	—	—
L3	-6.47E+03	1.37E+04	111	8.21E+03	-45
L4	-6.47E+03	1.37E+04	111	8.21E+03	-45
NF	—	—	—	—	—
NS	-3.42E+03	6.56E+03	105	2.32E+03	-69

Table H–890. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.67E+04	5.51E+03	-3.67E+04	4.77E+03
FD	-1.83E+04	1.91E+04	-1.82E+04	1.93E+04
L1	—	—	—	—
L3	-3.60E+04	3.08E+03	-3.56E+04	3.05E+03
L4	-3.60E+04	3.08E+03	-3.56E+04	3.05E+03
NF	—	—	—	—
NS	-1.52E+04	2.53E+03	-1.47E+04	2.42E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-446. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

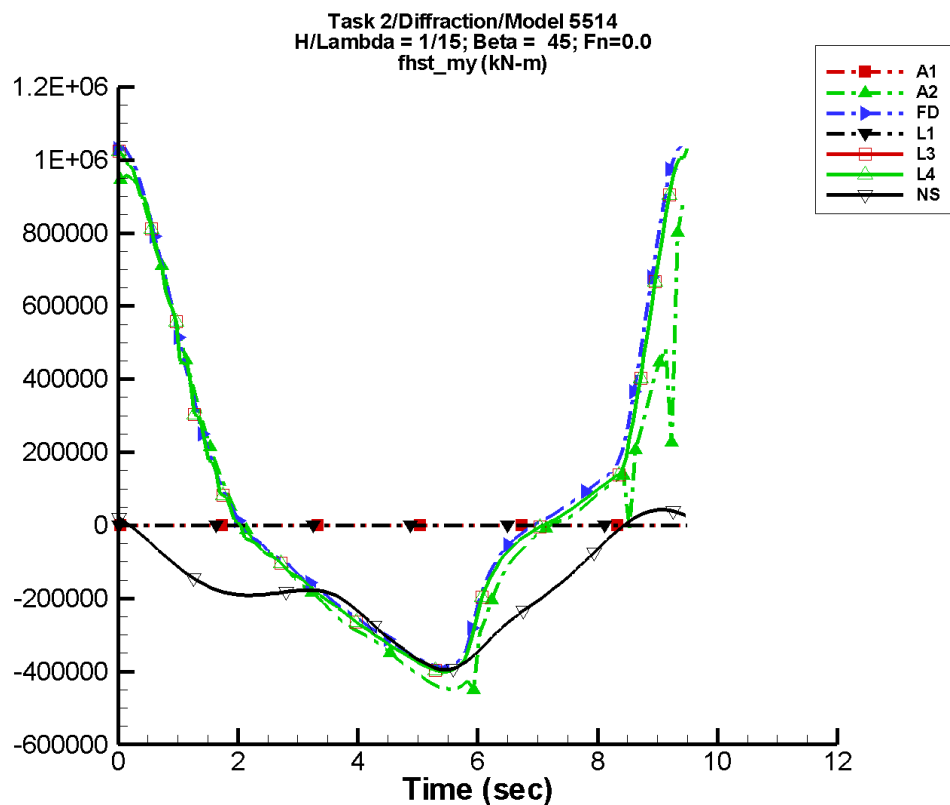
Table H–891. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.40E+04	1.76E+05	92	5.05E+04	-106
FD	-4.38E+04	1.59E+05	95	4.26E+04	-99
L1	—	—	—	—	—
L3	-5.96E+04	1.59E+05	97	4.32E+04	-92
L4	-5.96E+04	1.59E+05	97	4.32E+04	-92
NF	—	—	—	—	—
NS	-1.81E+05	6.60E+04	89	3.09E+04	157

Table H–892. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.23E+05	7.54E+04	-3.18E+05	7.31E+04
FD	-2.69E+05	9.43E+04	-2.65E+05	9.22E+04
L1	—	—	—	—
L3	-2.80E+05	7.64E+04	-2.79E+05	7.58E+04
L4	-2.80E+05	7.64E+04	-2.79E+05	7.58E+04
NF	—	—	—	—
NS	-2.66E+05	-8.72E+04	-2.64E+05	-8.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-447. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

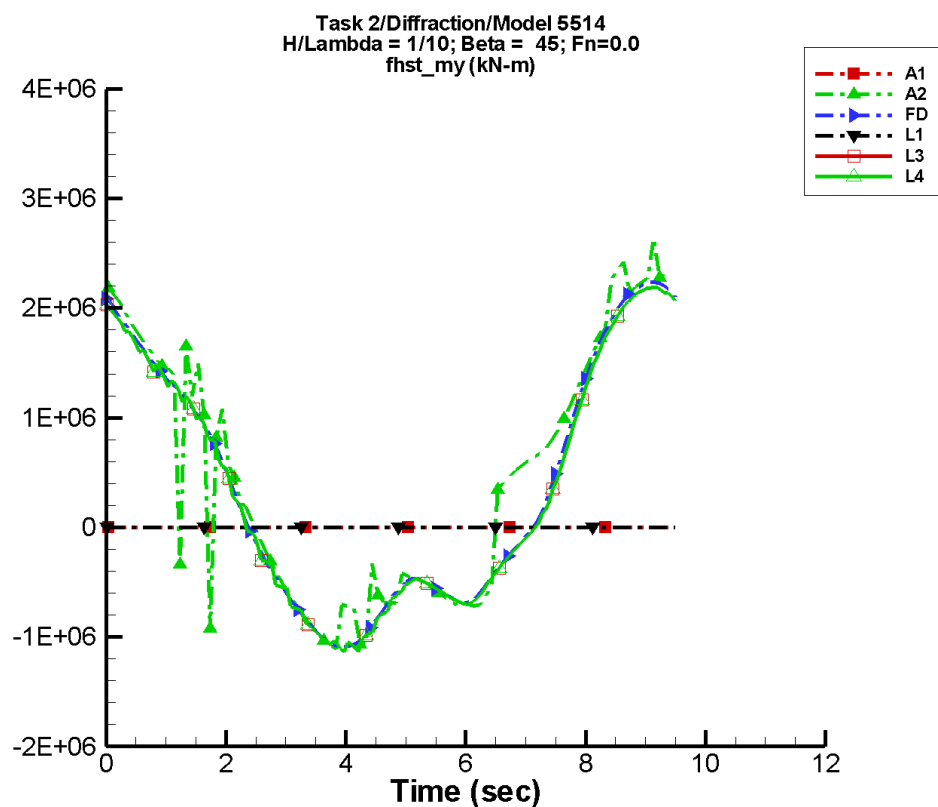
Table H-893. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	4.50E+04	5.15E+05	80	1.58E+05	61
FD	1.09E+05	5.33E+05	83	1.86E+05	79
L1	—	—	—	—	—
L3	8.53E+04	5.33E+05	85	1.87E+05	76
L4	8.53E+04	5.33E+05	85	1.87E+05	76
NF	—	—	—	—	—
NS	-1.74E+05	1.61E+05	89	7.34E+04	167

Table H-894. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.50E+05	9.58E+05	-4.42E+05	9.50E+05
FD	-3.89E+05	1.04E+06	-3.80E+05	1.01E+06
L1	—	—	—	—
L3	-4.00E+05	1.03E+06	-3.98E+05	1.02E+06
L4	-4.00E+05	1.03E+06	-3.98E+05	1.02E+06
NF	—	—	—	—
NS	-3.95E+05	4.24E+04	-3.90E+05	3.96E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-448. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

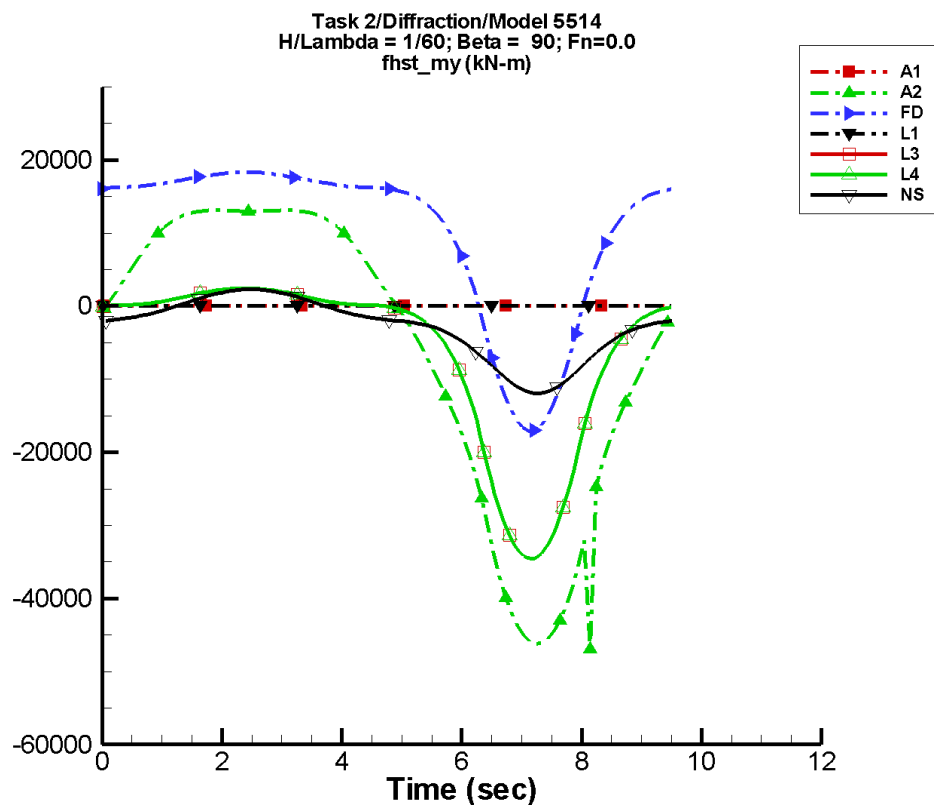
Table H-895. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	5.04E+05	1.52E+06	101	1.91E+05	100
FD	3.52E+05	1.52E+06	91	2.57E+05	80
L1	—	—	—	—	—
L3	3.33E+05	1.48E+06	92	2.81E+05	86
L4	3.33E+05	1.48E+06	92	2.81E+05	86
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-896. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.81E+06	2.63E+06	-9.92E+05	2.33E+06
FD	-1.09E+06	2.24E+06	-1.09E+06	2.19E+06
L1	—	—	—	—
L3	-1.14E+06	2.19E+06	-1.09E+06	2.17E+06
L4	-1.14E+06	2.19E+06	-1.09E+06	2.17E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-449. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-897. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

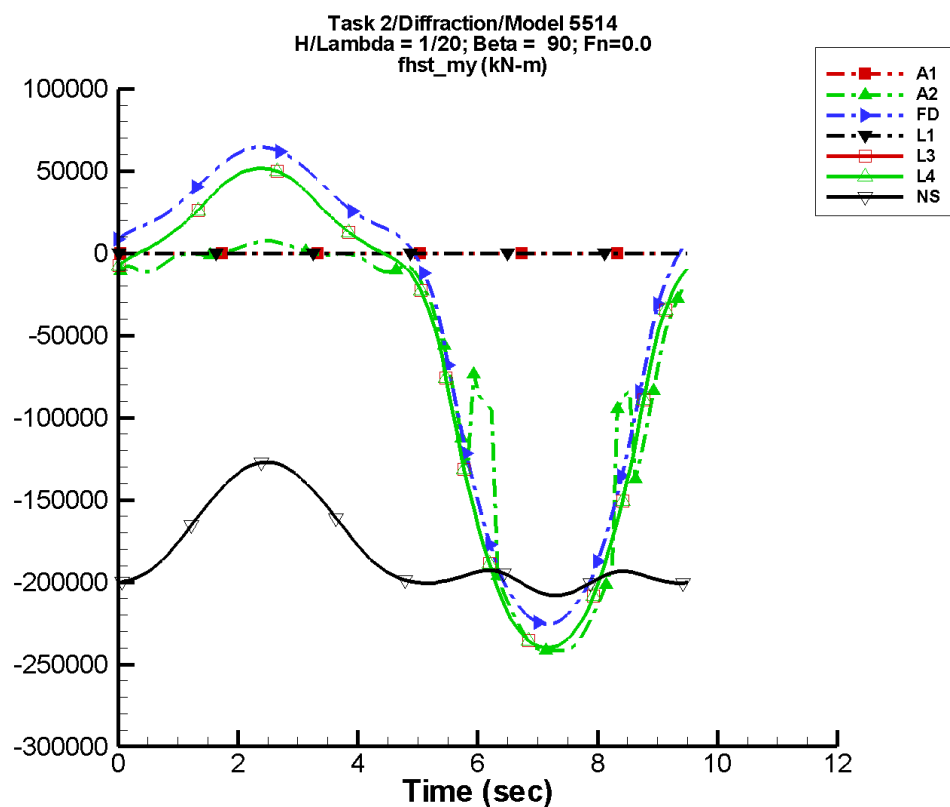
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.36E+03	2.64E+04	-10	8.36E+03	70
FD	9.96E+03	1.24E+04	-6	6.59E+03	79
L1	—	—	—	—	—
L3	-6.69E+03	1.36E+04	-7	7.70E+03	77
L4	-6.69E+03	1.36E+04	-7	7.70E+03	77
NF	—	—	—	—	—
NS	-2.99E+03	5.40E+03	-5	1.19E+03	86

Table H-898. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.70E+04	1.31E+04	-4.50E+04	1.32E+04
FD	-1.71E+04	1.84E+04	-1.58E+04	1.83E+04
L1	—	—	—	—
L3	-3.46E+04	2.45E+03	-3.42E+04	2.43E+03
L4	-3.46E+04	2.45E+03	-3.42E+04	2.43E+03
NF	—	—	—	—
NS	-1.19E+04	2.34E+03	-1.15E+04	2.21E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-450. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

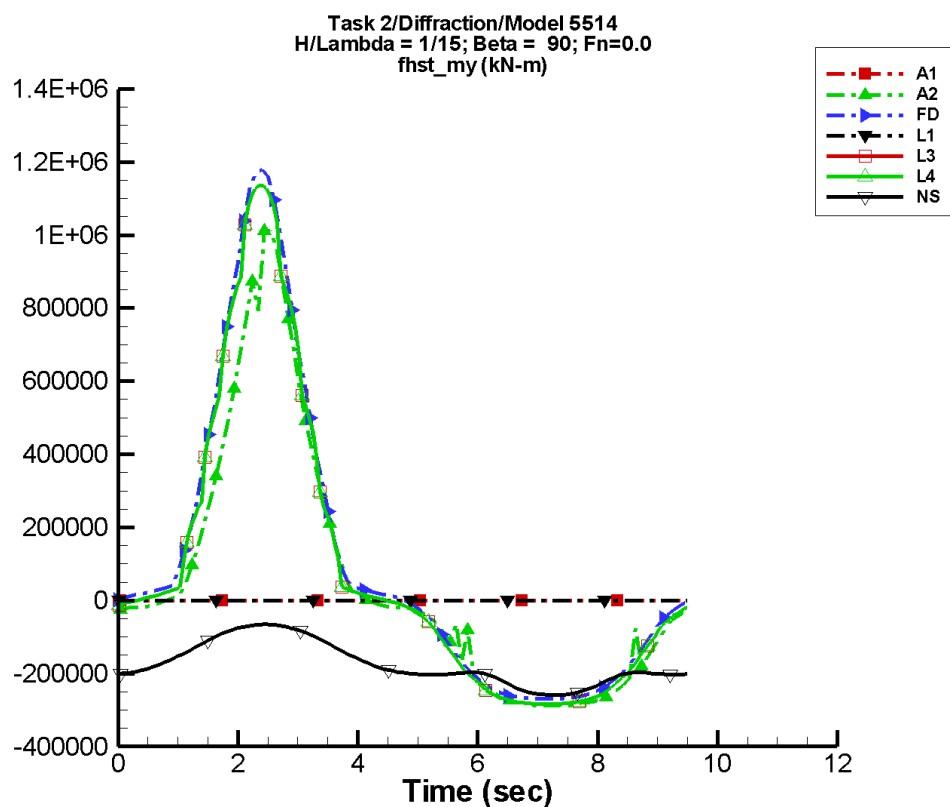
Table H-899. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.66E+04	1.09E+05	-8	5.73E+04	72
FD	-4.59E+04	1.35E+05	-6	4.03E+04	79
L1	—	—	—	—	—
L3	-6.03E+04	1.36E+05	-4	4.20E+04	81
L4	-6.03E+04	1.36E+05	-4	4.20E+04	81
NF	—	—	—	—	—
NS	-1.81E+05	3.11E+04	-5	1.77E+04	-99

Table H-900. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.42E+05	3.42E+05	-2.42E+05	3.75E+04
FD	-2.25E+05	6.45E+04	-2.23E+05	6.32E+04
L1	—	—	—	—
L3	-2.40E+05	5.16E+04	-2.39E+05	5.11E+04
L4	-2.40E+05	5.16E+04	-2.39E+05	5.11E+04
NF	—	—	—	—
NS	-2.08E+05	-1.27E+05	-2.07E+05	-1.29E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-451. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

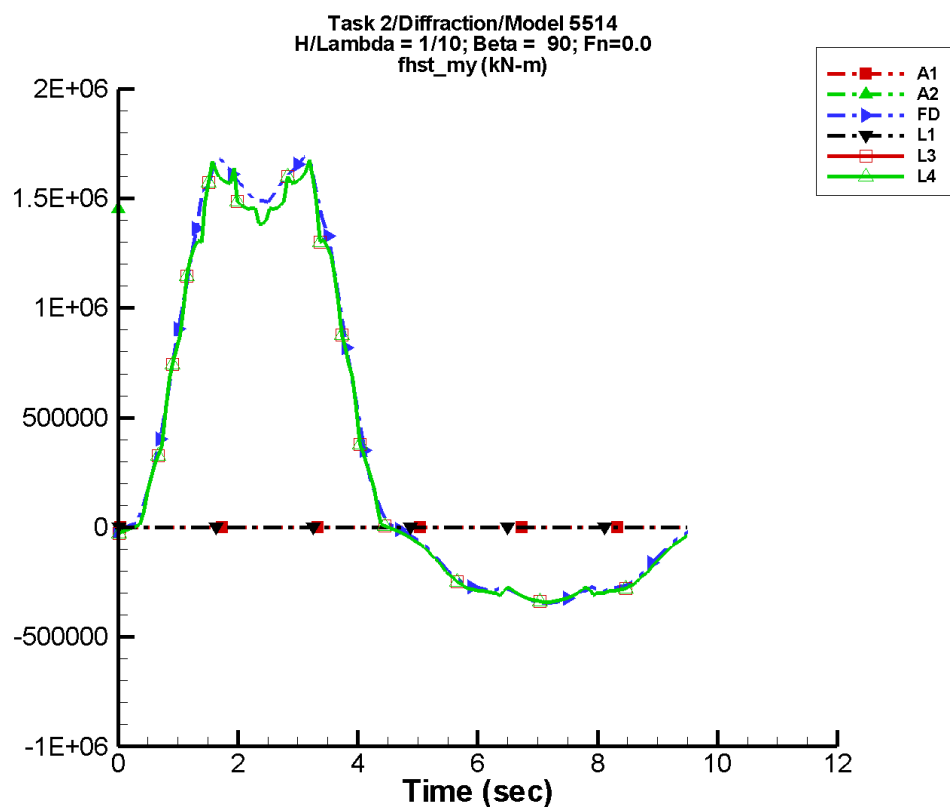
Table H-901. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.85E+04	3.96E+05	-11	1.54E+05	-116
FD	9.02E+04	4.83E+05	-5	2.56E+05	-101
L1	—	—	—	—	—
L3	7.37E+04	4.87E+05	-6	2.14E+05	-93
L4	7.37E+04	4.87E+05	-6	2.14E+05	-93
NF	—	—	—	—	—
NS	-1.75E+05	7.54E+04	-5	2.16E+04	-97

Table H-902. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.88E+05	1.01E+06	-2.86E+05	8.76E+05
FD	-2.70E+05	1.18E+06	-2.69E+05	1.09E+06
L1	—	—	—	—
L3	-2.84E+05	1.14E+06	-2.84E+05	1.11E+06
L4	-2.84E+05	1.14E+06	-2.84E+05	1.11E+06
NF	—	—	—	—
NS	-2.58E+05	-6.54E+04	-2.58E+05	-6.70E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-452. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

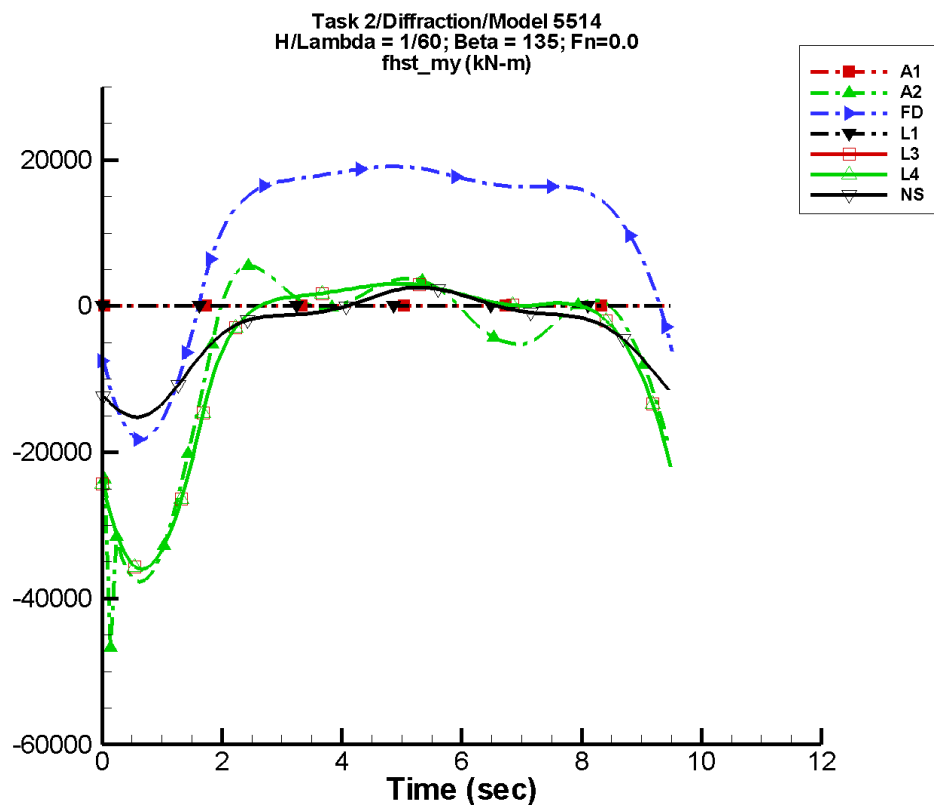
Table H-903. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.40E+05	2.27E+06	44	6.11E+05	-134
FD	3.66E+05	9.87E+05	-6	3.86E+05	-102
L1	—	—	—	—	—
L3	3.36E+05	9.61E+05	-4	3.66E+05	-95
L4	3.36E+05	9.61E+05	-4	3.66E+05	-95
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-904. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	1.45E+06	1.49E+06	1.45E+06	1.49E+06
FD	-3.44E+05	1.69E+06	-3.33E+05	1.61E+06
L1	—	—	—	—
L3	-3.40E+05	1.68E+06	-3.39E+05	1.59E+06
L4	-3.40E+05	1.68E+06	-3.39E+05	1.59E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-453. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-905. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

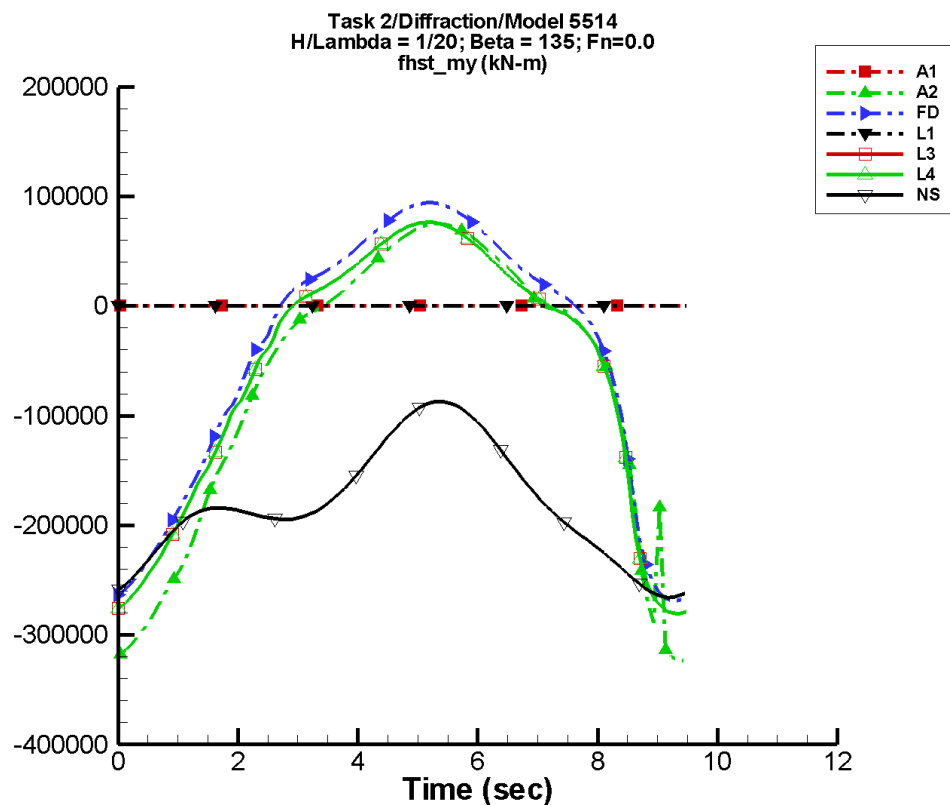
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.51E+03	1.31E+04	-107	1.05E+04	-150
FD	9.80E+03	1.35E+04	-117	8.91E+03	-146
L1	—	—	—	—	—
L3	-6.62E+03	1.40E+04	-116	9.38E+03	-144
L4	-6.62E+03	1.40E+04	-116	9.38E+03	-144
NF	—	—	—	—	—
NS	-3.38E+03	6.76E+03	-109	2.91E+03	-126

Table H-906. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.67E+04	5.51E+03	-3.64E+04	4.78E+03
FD	-1.83E+04	1.91E+04	-1.71E+04	1.90E+04
L1	—	—	—	—
L3	-3.60E+04	3.08E+03	-3.56E+04	3.05E+03
L4	-3.60E+04	3.08E+03	-3.56E+04	3.05E+03
NF	—	—	—	—
NS	-1.52E+04	2.53E+03	-1.47E+04	2.42E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-454. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

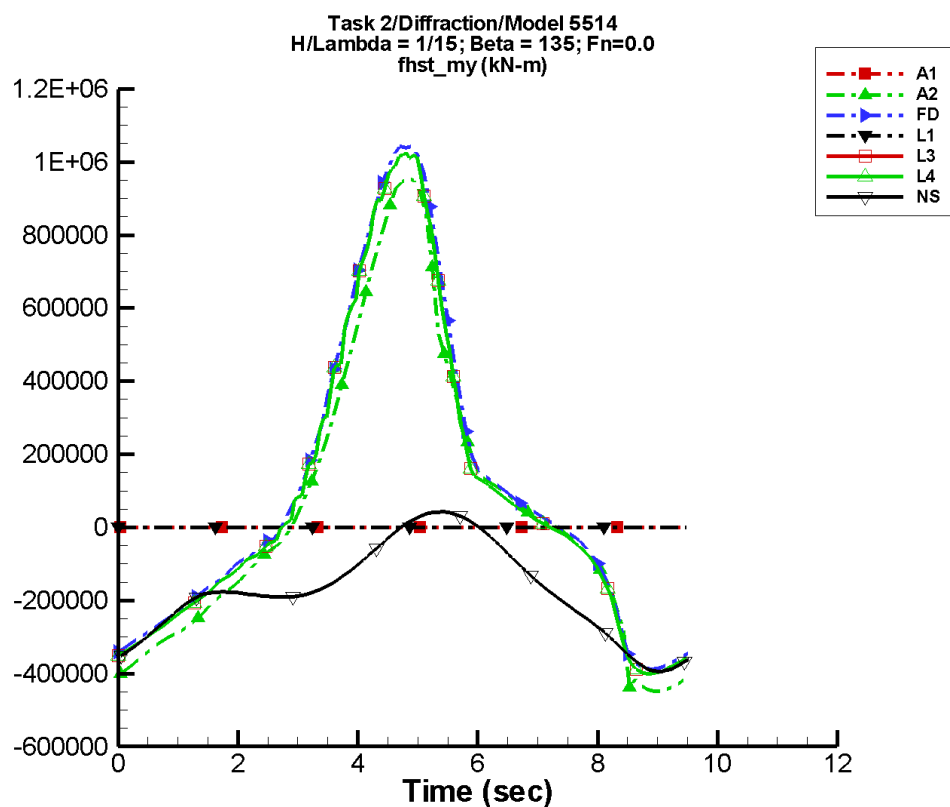
Table H-907. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.13E+04	1.72E+05	-110	5.27E+04	-111
FD	-4.45E+04	1.58E+05	-107	4.39E+04	-104
L1	—	—	—	—	—
L3	-5.91E+04	1.56E+05	-104	4.37E+04	-101
L4	-5.91E+04	1.56E+05	-104	4.37E+04	-101
NF	—	—	—	—	—
NS	-1.81E+05	6.59E+04	-95	3.04E+04	1

Table H-908. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.23E+05	7.54E+04	-3.14E+05	7.32E+04
FD	-2.69E+05	9.43E+04	-2.65E+05	9.22E+04
L1	—	—	—	—
L3	-2.80E+05	7.64E+04	-2.79E+05	7.58E+04
L4	-2.80E+05	7.64E+04	-2.79E+05	7.58E+04
NF	—	—	—	—
NS	-2.66E+05	-8.72E+04	-2.63E+05	-8.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-455. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

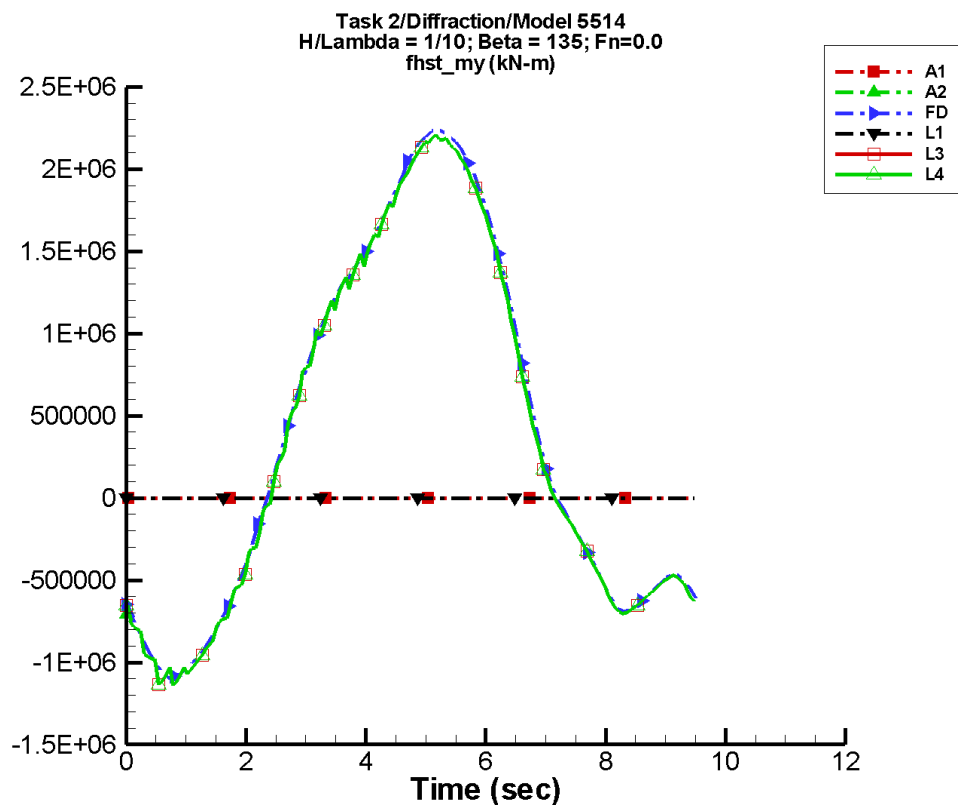
Table H-909. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	5.19E+04	5.07E+05	-95	1.23E+05	84
FD	1.00E+05	5.24E+05	-95	1.69E+05	78
L1	—	—	—	—	—
L3	8.39E+04	5.18E+05	-92	1.68E+05	84
L4	8.39E+04	5.18E+05	-92	1.68E+05	84
NF	—	—	—	—	—
NS	-1.73E+05	1.61E+05	-93	7.29E+04	-4

Table H-910. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.48E+05	9.57E+05	-4.42E+05	8.99E+05
FD	-3.88E+05	1.04E+06	-3.80E+05	1.00E+06
L1	—	—	—	—
L3	-4.00E+05	1.03E+06	-3.98E+05	1.01E+06
L4	-4.00E+05	1.03E+06	-3.98E+05	1.01E+06
NF	—	—	—	—
NS	-3.94E+05	4.23E+04	-3.89E+05	3.93E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-456. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

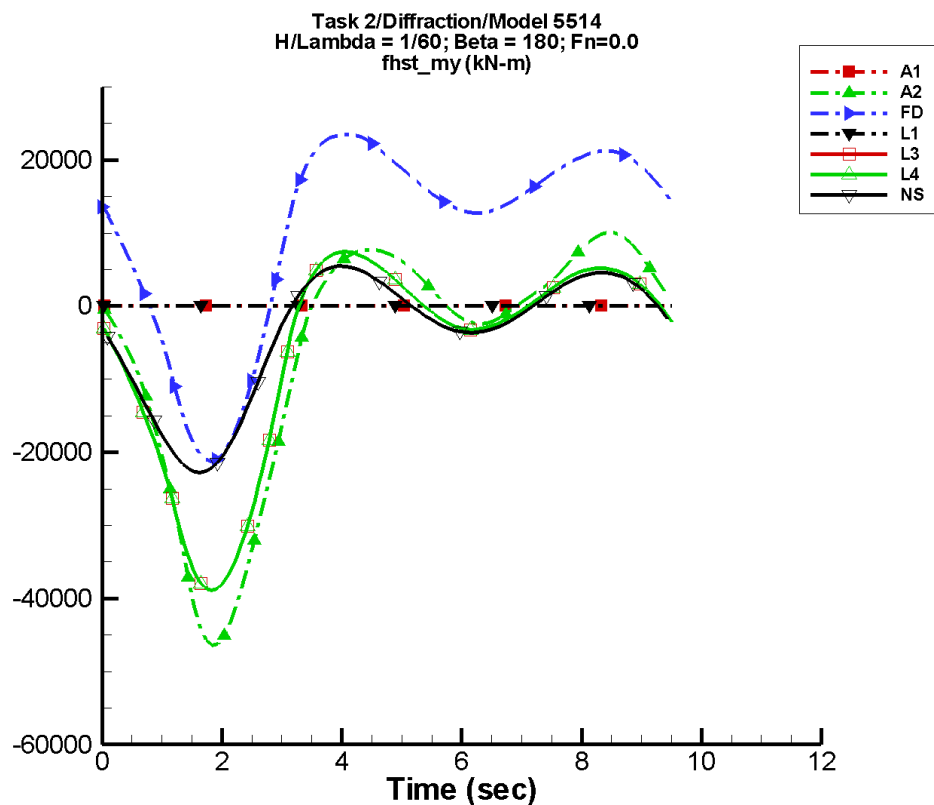
Table H-911. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.24E+06	6.59E+05	143	1.62E+05	39
FD	3.59E+05	1.52E+06	-102	2.68E+05	78
L1	—	—	—	—	—
L3	3.30E+05	1.50E+06	-100	2.63E+05	85
L4	3.30E+05	1.50E+06	-100	2.63E+05	85
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-912. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.16E+05	-7.09E+05	-7.16E+05	-7.09E+05
FD	-1.09E+06	2.24E+06	-1.05E+06	2.19E+06
L1	—	—	—	—
L3	-1.14E+06	2.21E+06	-1.09E+06	2.18E+06
L4	-1.14E+06	2.21E+06	-1.09E+06	2.18E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-457. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-913. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

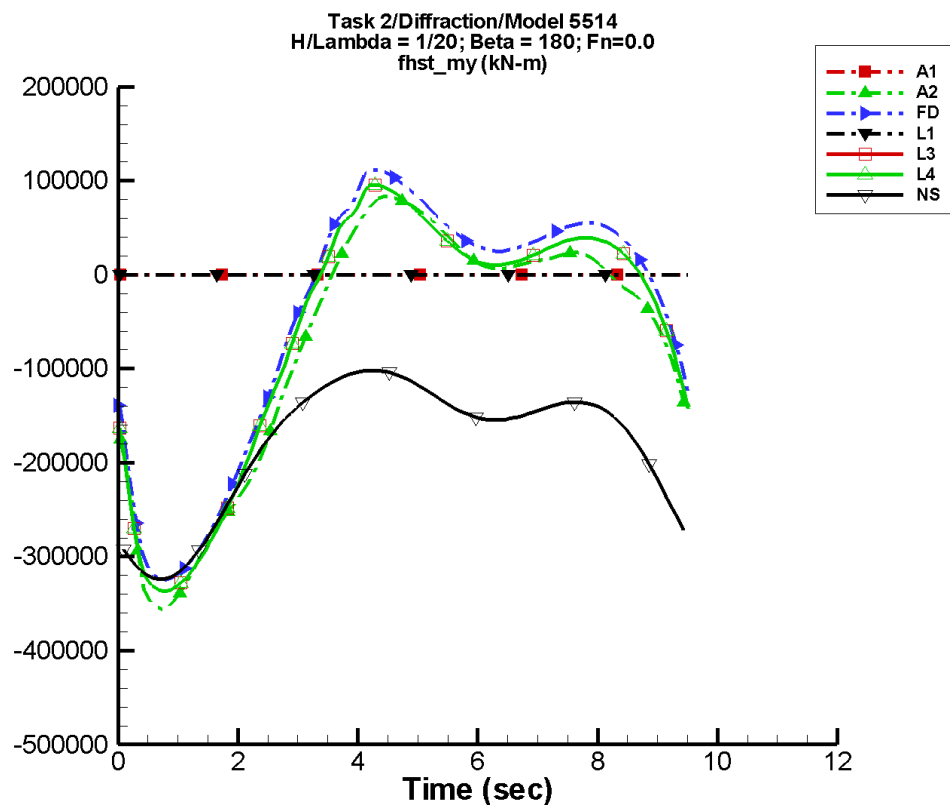
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.86E+03	1.68E+04	-170	1.56E+04	119
FD	1.05E+04	1.29E+04	-159	1.39E+04	129
L1	—	—	—	—	—
L3	-6.20E+03	1.39E+04	-160	1.37E+04	130
L4	-6.20E+03	1.39E+04	-160	1.37E+04	130
NF	—	—	—	—	—
NS	-3.79E+03	7.98E+03	-149	9.14E+03	153

Table H-914. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.64E+04	1.01E+04	-4.56E+04	9.50E+03
FD	-2.13E+04	2.35E+04	-1.98E+04	2.35E+04
L1	—	—	—	—
L3	-3.89E+04	7.44E+03	-3.84E+04	7.29E+03
L4	-3.89E+04	7.44E+03	-3.84E+04	7.29E+03
NF	—	—	—	—
NS	-2.28E+04	5.47E+03	-2.20E+04	5.16E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-458. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

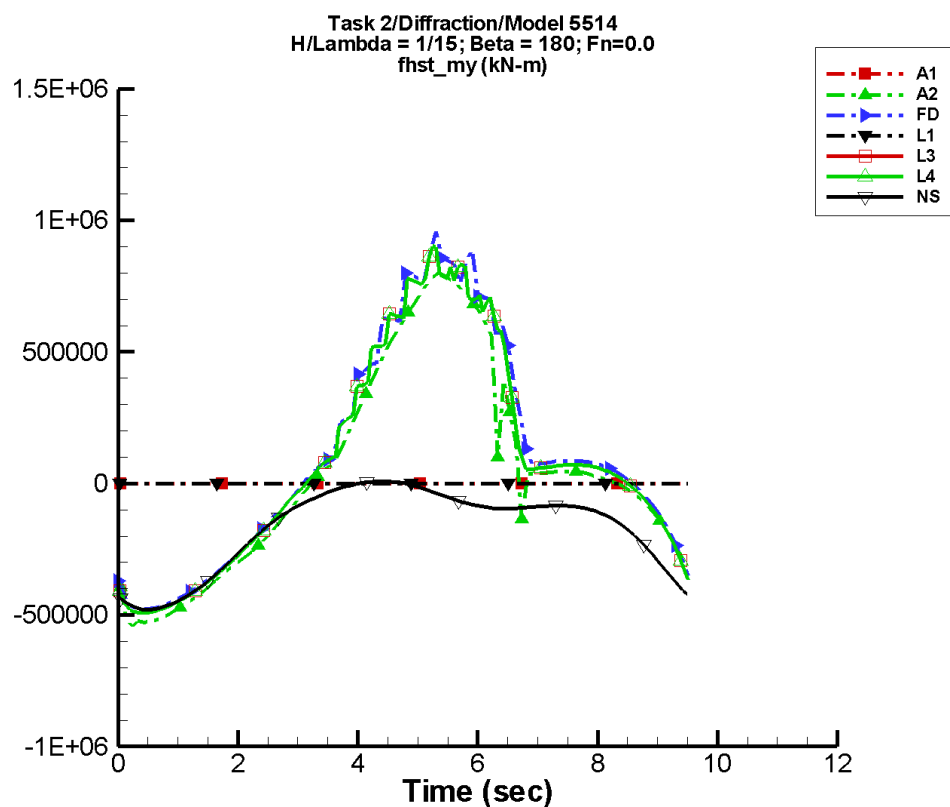
Table H-915. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.26E+04	1.69E+05	-135	8.21E+04	163
FD	-4.68E+04	1.68E+05	-136	9.46E+04	166
L1	—	—	—	—	—
L3	-6.03E+04	1.66E+05	-133	9.67E+04	171
L4	-6.03E+04	1.66E+05	-133	9.67E+04	171
NF	—	—	—	—	—
NS	-1.81E+05	8.46E+04	-111	5.07E+04	-159

Table H-916. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.56E+05	8.36E+04	-3.44E+05	7.87E+04
FD	-3.25E+05	1.11E+05	-3.19E+05	1.05E+05
L1	—	—	—	—
L3	-3.36E+05	9.58E+04	-3.35E+05	9.29E+04
L4	-3.36E+05	9.58E+04	-3.35E+05	9.29E+04
NF	—	—	—	—
NS	-3.24E+05	-1.02E+05	-3.20E+05	-1.03E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-459. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

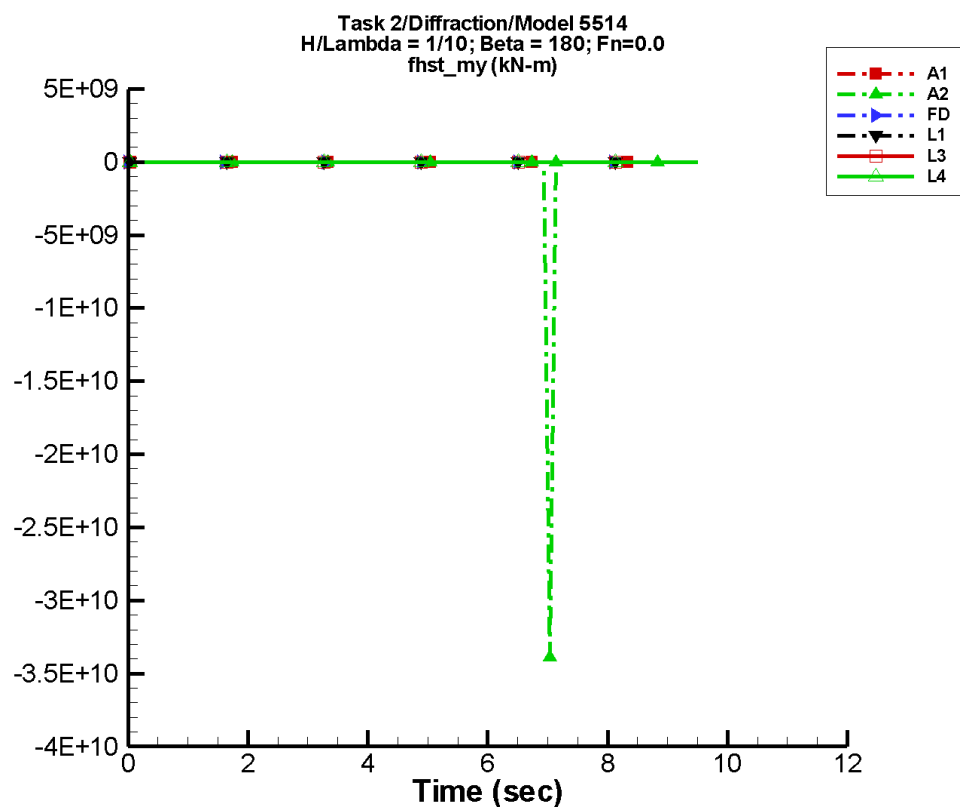
Table H-917. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.58E+04	5.27E+05	-121	9.52E+04	79
FD	9.72E+04	5.64E+05	-123	8.93E+04	55
L1	—	—	—	—	—
L3	8.30E+04	5.56E+05	-119	8.75E+04	72
L4	8.30E+04	5.56E+05	-119	8.75E+04	72
NF	—	—	—	—	—
NS	-1.73E+05	2.00E+05	-108	9.28E+04	-152

Table H-918. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.49E+05	8.01E+05	-5.18E+05	7.68E+05
FD	-4.79E+05	9.58E+05	-4.69E+05	8.47E+05
L1	—	—	—	—
L3	-4.92E+05	9.04E+05	-4.90E+05	8.27E+05
L4	-4.92E+05	9.04E+05	-4.90E+05	8.27E+05
NF	—	—	—	—
NS	-4.80E+05	7.76E+03	-4.75E+05	6.15E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-460. Time history of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

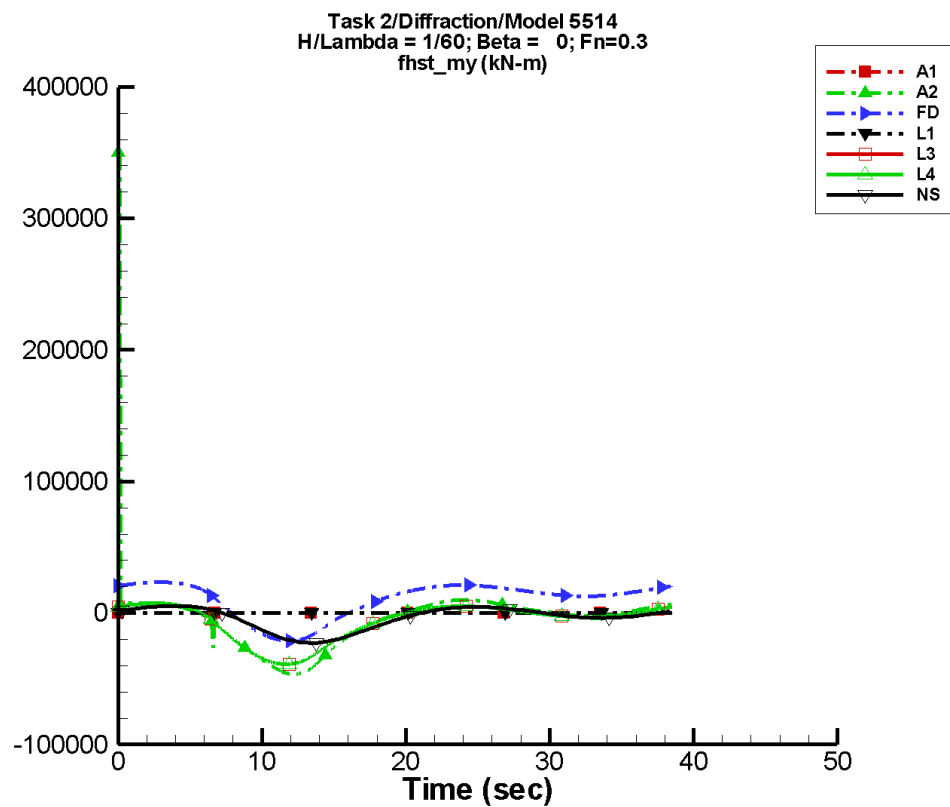
Table H-919. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.72E+08	7.12E+08	-4	6.53E+08	91
FD	3.80E+05	1.65E+06	-121	1.28E+05	-86
L1	—	—	—	—	—
L3	3.40E+05	1.63E+06	-119	1.44E+05	-74
L4	3.40E+05	1.63E+06	-119	1.44E+05	-74
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-920. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.39E+10	2.53E+06	-4.51E+09	3.88E+08
FD	-1.50E+06	2.10E+06	-1.43E+06	1.95E+06
L1	—	—	—	—
L3	-1.52E+06	2.04E+06	-1.44E+06	1.95E+06
L4	-1.52E+06	2.04E+06	-1.44E+06	1.95E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-461. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-921. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

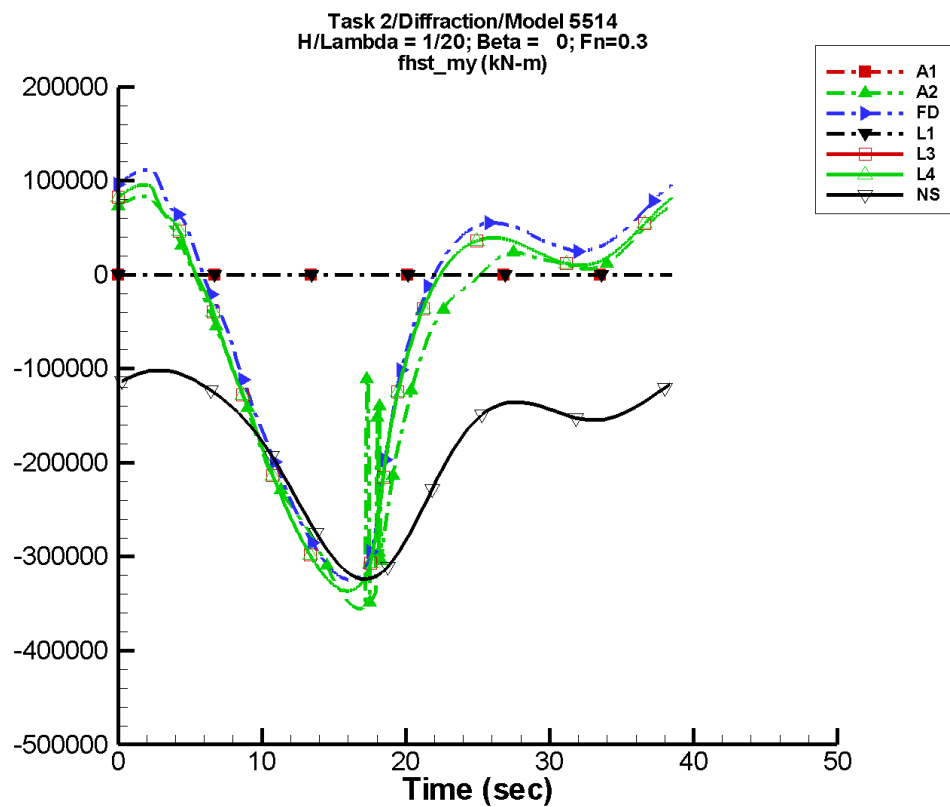
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.93E+03	1.66E+04	163	1.52E+04	48
FD	1.04E+04	1.32E+04	159	1.29E+04	55
L1	—	—	—	—	—
L3	-6.16E+03	1.37E+04	158	1.31E+04	48
L4	-6.16E+03	1.37E+04	158	1.31E+04	48
NF	—	—	—	—	—
NS	-3.72E+03	7.67E+03	141	8.95E+03	9

Table H-922. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.64E+04	1.01E+04	-4.63E+04	1.01E+04
FD	-2.13E+04	2.35E+04	-2.12E+04	2.35E+04
L1	—	—	—	—
L3	-3.89E+04	7.44E+03	-3.89E+04	7.43E+03
L4	-3.89E+04	7.44E+03	-3.89E+04	7.43E+03
NF	—	—	—	—
NS	-2.28E+04	5.47E+03	-2.20E+04	5.18E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-462. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

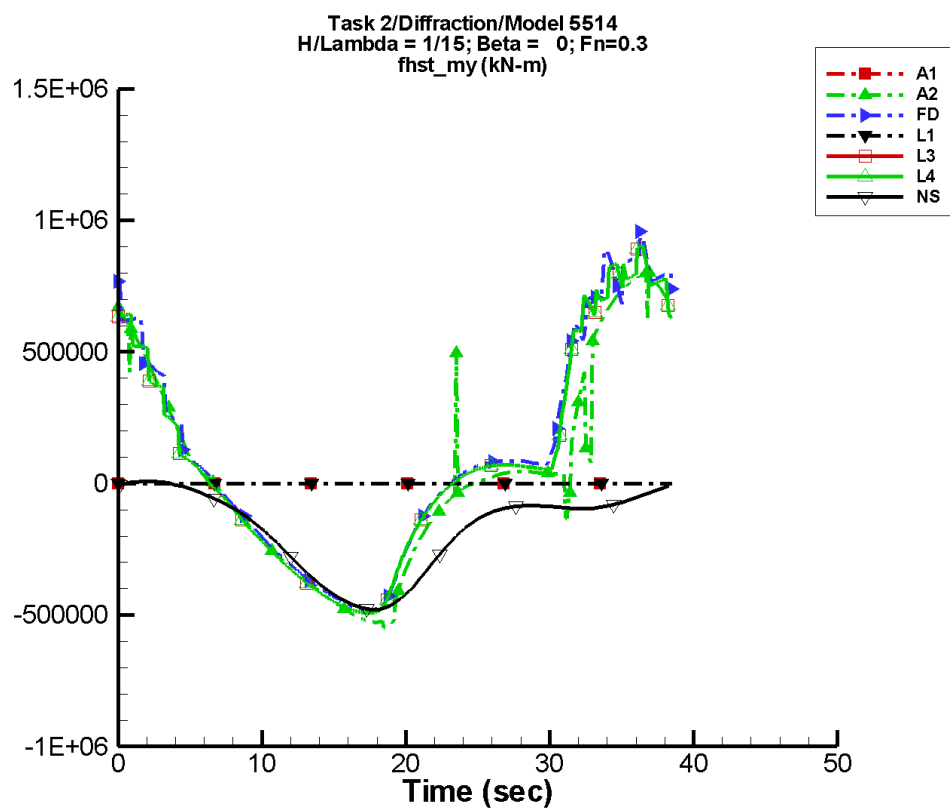
Table H-923. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.15E+04	1.67E+05	133	7.93E+04	15
FD	-4.47E+04	1.65E+05	138	9.73E+04	21
L1	—	—	—	—	—
L3	-5.91E+04	1.64E+05	135	9.64E+04	15
L4	-5.91E+04	1.64E+05	135	9.64E+04	15
NF	—	—	—	—	—
NS	-1.81E+05	8.39E+04	106	4.78E+04	-31

Table H-924. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.56E+05	8.37E+04	-3.58E+05	8.35E+04
FD	-3.25E+05	1.12E+05	-3.24E+05	1.11E+05
L1	—	—	—	—
L3	-3.36E+05	9.58E+04	-3.36E+05	9.57E+04
L4	-3.36E+05	9.58E+04	-3.36E+05	9.57E+04
NF	—	—	—	—
NS	-3.24E+05	-1.02E+05	-3.20E+05	-1.03E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-463. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

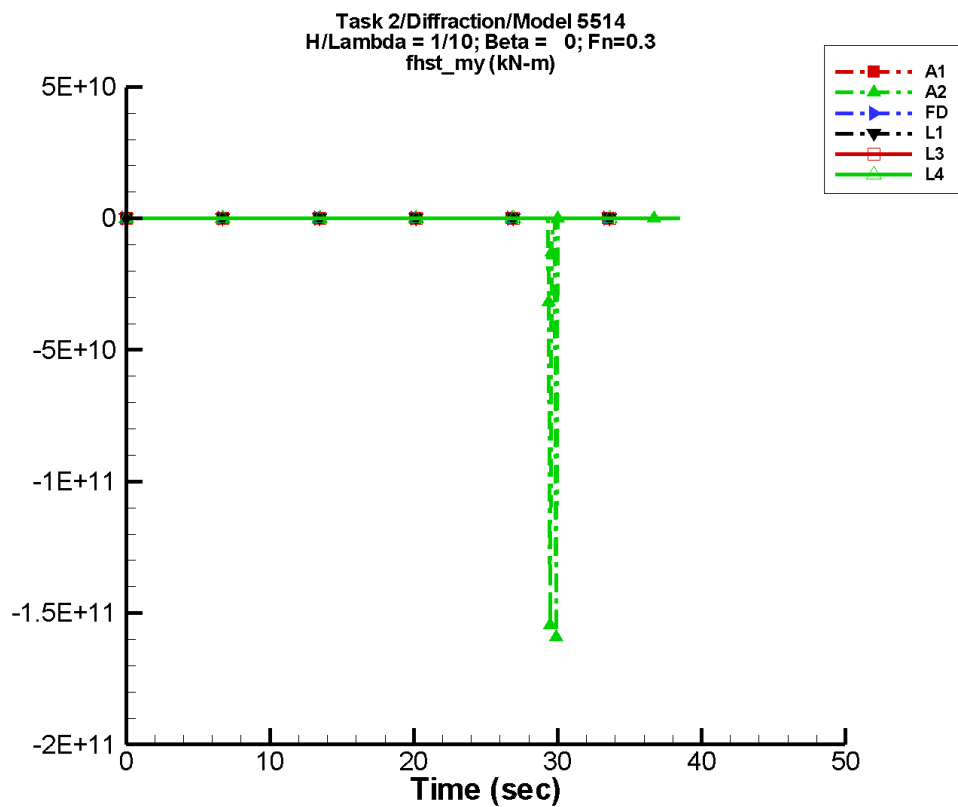
Table H-925. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.60E+04	5.02E+05	119	1.08E+05	98
FD	1.01E+05	5.50E+05	125	1.05E+05	117
L1	—	—	—	—	—
L3	8.53E+04	5.48E+05	122	1.14E+05	109
L4	8.53E+04	5.48E+05	122	1.14E+05	109
NF	—	—	—	—	—
NS	-1.73E+05	1.99E+05	105	8.73E+04	-34

Table H-926. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.51E+05	8.03E+05	-5.40E+05	7.81E+05
FD	-4.79E+05	9.61E+05	-4.79E+05	8.98E+05
L1	—	—	—	—
L3	-4.92E+05	9.06E+05	-4.92E+05	8.98E+05
L4	-4.92E+05	9.06E+05	-4.92E+05	8.98E+05
NF	—	—	—	—
NS	-4.80E+05	7.76E+03	-4.75E+05	6.11E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-464. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

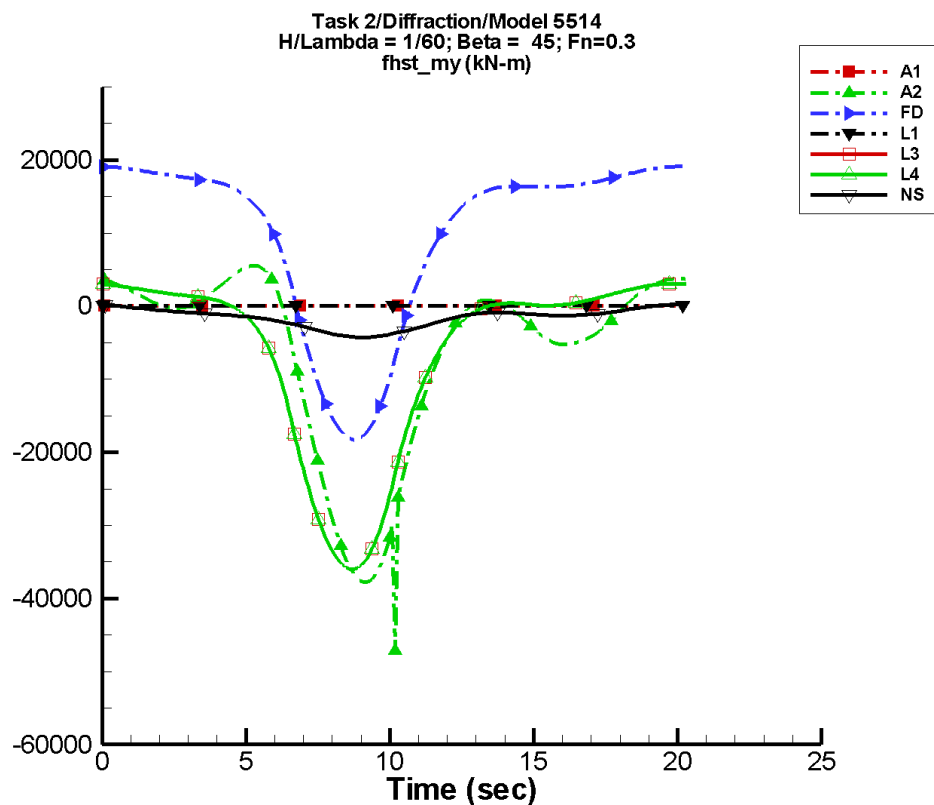
Table H-927. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-9.76E+08	1.89E+09	-6	1.66E+09	87
FD	3.83E+05	1.66E+06	123	1.47E+05	-86
L1	—	—	—	—	—
L3	3.45E+05	1.63E+06	119	1.51E+05	-90
L4	3.45E+05	1.63E+06	119	1.51E+05	-90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-928. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.59E+11	2.55E+06	-4.02E+10	1.74E+09
FD	-1.55E+06	2.10E+06	-1.44E+06	2.07E+06
L1	—	—	—	—
L3	-1.59E+06	2.04E+06	-1.51E+06	2.04E+06
L4	-1.59E+06	2.04E+06	-1.51E+06	2.04E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-465. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-929. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

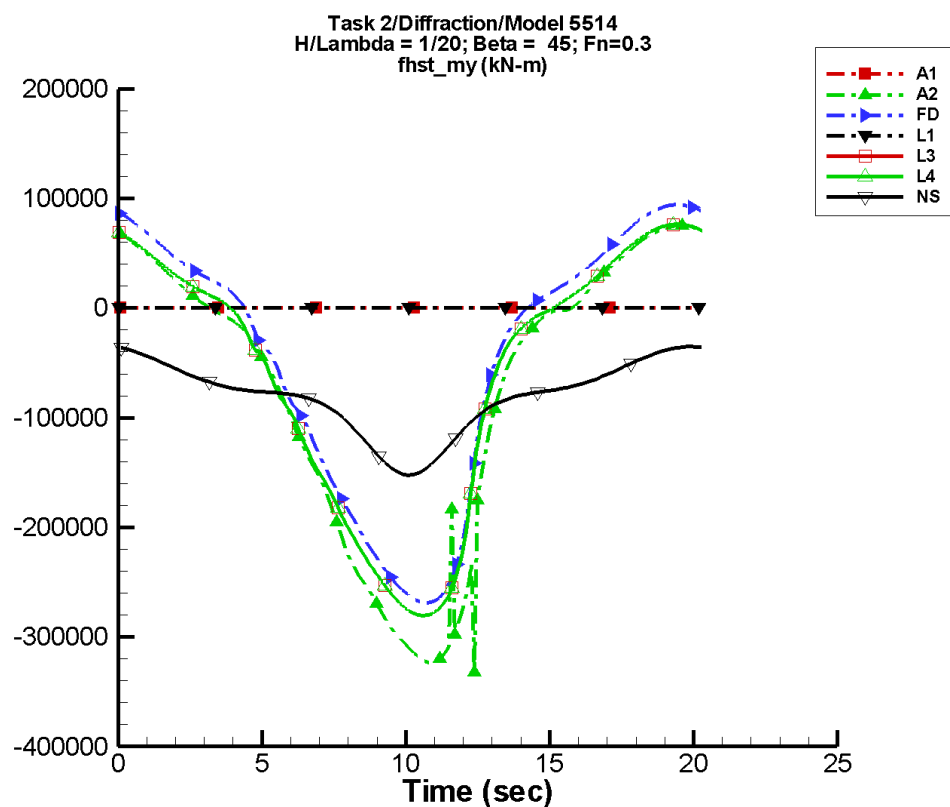
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.35E+03	1.17E+04	92	8.60E+03	-69
FD	1.00E+04	1.31E+04	102	7.94E+03	-62
L1	—	—	—	—	—
L3	-6.57E+03	1.41E+04	110	9.31E+03	-49
L4	-6.57E+03	1.41E+04	110	9.31E+03	-49
NF	—	—	—	—	—
NS	-1.58E+03	1.60E+03	107	551.	-27

Table H-930. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.71E+04	5.51E+03	-3.73E+04	5.36E+03
FD	-1.83E+04	1.91E+04	-1.80E+04	1.91E+04
L1	—	—	—	—
L3	-3.60E+04	3.08E+03	-3.59E+04	3.08E+03
L4	-3.60E+04	3.08E+03	-3.59E+04	3.08E+03
NF	—	—	—	—
NS	-4.27E+03	221.	-4.18E+03	159.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-466. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

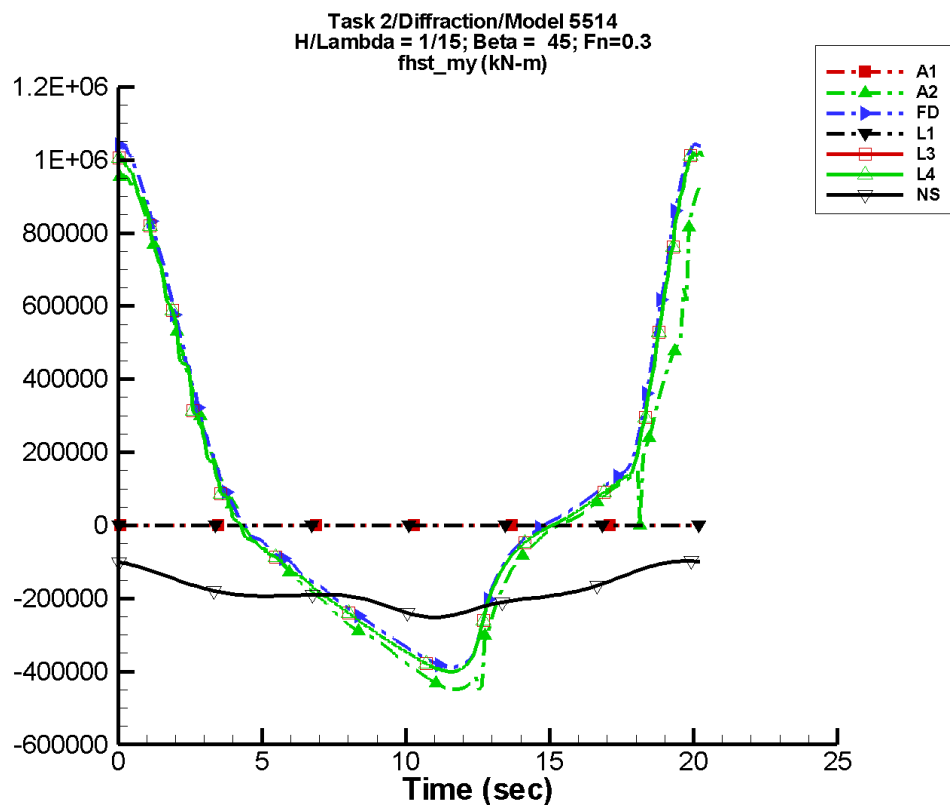
Table H-931. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.39E+04	1.75E+05	91	5.03E+04	-109
FD	-4.48E+04	1.61E+05	90	4.35E+04	-107
L1	—	—	—	—	—
L3	-5.87E+04	1.57E+05	98	4.29E+04	-92
L4	-5.87E+04	1.57E+05	98	4.29E+04	-92
NF	—	—	—	—	—
NS	-8.05E+04	4.27E+04	95	7.66E+03	-114

Table H-932. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.32E+05	7.54E+04	-3.23E+05	7.49E+04
FD	-2.69E+05	9.43E+04	-2.68E+05	9.39E+04
L1	—	—	—	—
L3	-2.80E+05	7.64E+04	-2.80E+05	7.62E+04
L4	-2.80E+05	7.64E+04	-2.80E+05	7.62E+04
NF	—	—	—	—
NS	-1.53E+05	-3.52E+04	-1.49E+05	-3.61E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-467. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

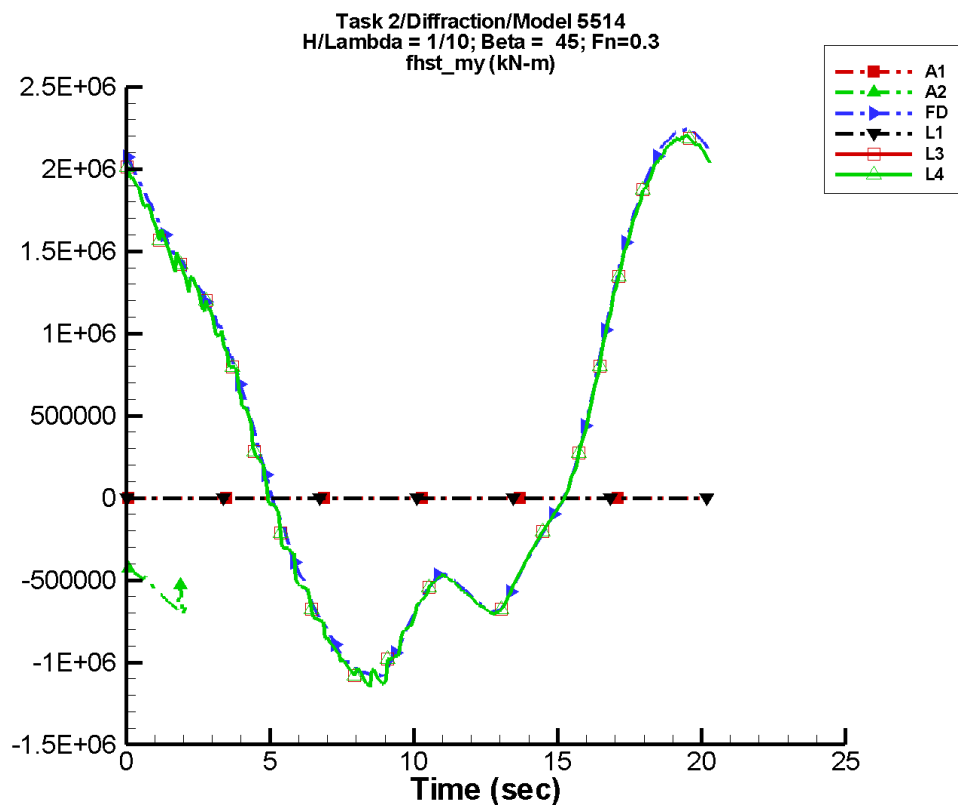
Table H-933. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	4.26E+04	5.03E+05	81	1.29E+05	60
FD	1.07E+05	5.45E+05	78	1.87E+05	60
L1	—	—	—	—	—
L3	8.80E+04	5.27E+05	86	1.77E+05	83
L4	8.80E+04	5.27E+05	86	1.77E+05	83
NF	—	—	—	—	—
NS	-1.80E+05	5.69E+04	91	2.08E+04	143

Table H-934. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.51E+05	9.58E+05	-4.46E+05	9.54E+05
FD	-3.89E+05	1.04E+06	-3.86E+05	1.04E+06
L1	—	—	—	—
L3	-4.00E+05	1.02E+06	-3.99E+05	1.01E+06
L4	-4.00E+05	1.02E+06	-3.99E+05	1.01E+06
NF	—	—	—	—
NS	-2.52E+05	-9.74E+04	-2.50E+05	-9.86E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-468. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

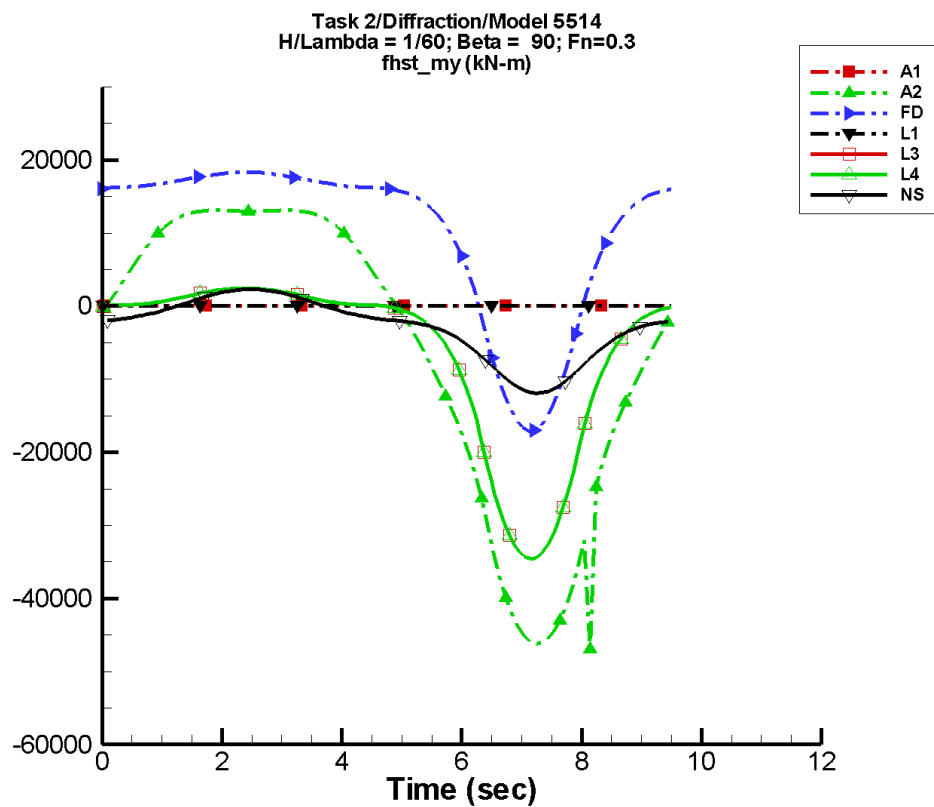
Table H-935. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.72E+06	2.05E+06	123	7.22E+05	-45
FD	3.53E+05	1.49E+06	86	2.95E+05	75
L1	—	—	—	—	—
L3	3.26E+05	1.50E+06	94	2.54E+05	82
L4	3.26E+05	1.50E+06	94	2.54E+05	82
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-936. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.10E+05	6.28E+03	-6.67E+05	1.38E+04
FD	-1.09E+06	2.25E+06	-1.07E+06	2.23E+06
L1	—	—	—	—
L3	-1.15E+06	2.21E+06	-1.10E+06	2.19E+06
L4	-1.15E+06	2.21E+06	-1.10E+06	2.19E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-469. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-937. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

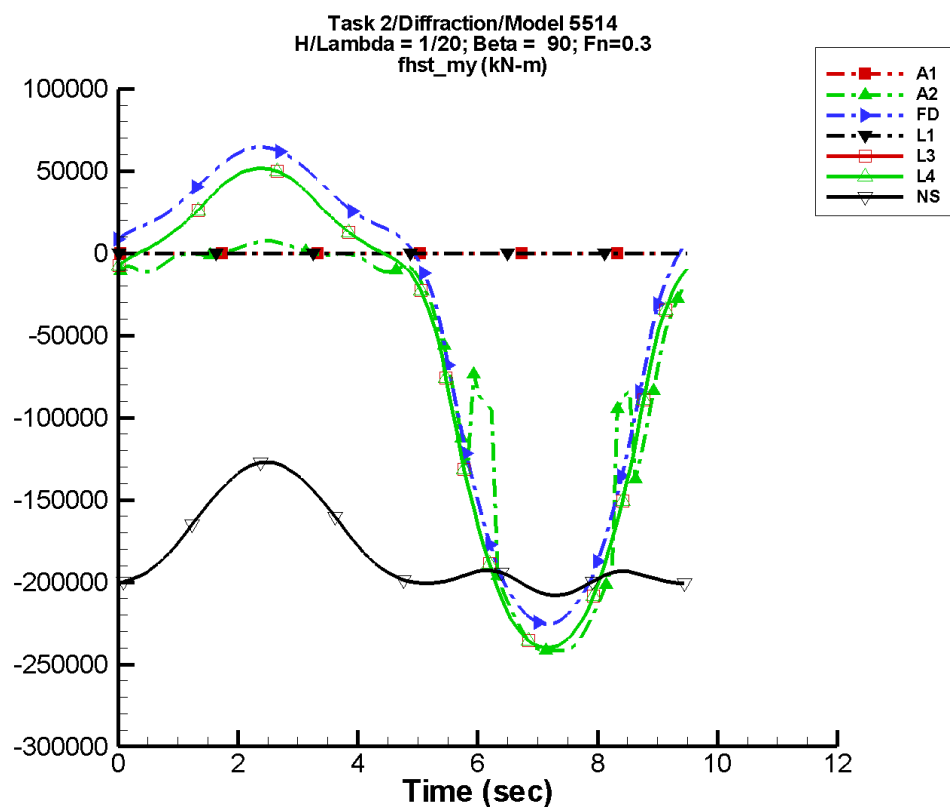
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.36E+03	2.64E+04	-10	8.36E+03	70
FD	9.96E+03	1.24E+04	-6	6.59E+03	79
L1	—	—	—	—	—
L3	-6.69E+03	1.36E+04	-7	7.70E+03	77
L4	-6.69E+03	1.36E+04	-7	7.70E+03	77
NF	—	—	—	—	—
NS	-2.99E+03	5.40E+03	-5	1.19E+03	86

Table H-938. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.70E+04	1.31E+04	-4.50E+04	1.32E+04
FD	-1.71E+04	1.84E+04	-1.58E+04	1.83E+04
L1	—	—	—	—
L3	-3.46E+04	2.45E+03	-3.42E+04	2.43E+03
L4	-3.46E+04	2.45E+03	-3.42E+04	2.43E+03
NF	—	—	—	—
NS	-1.19E+04	2.34E+03	-1.16E+04	2.22E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-470. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

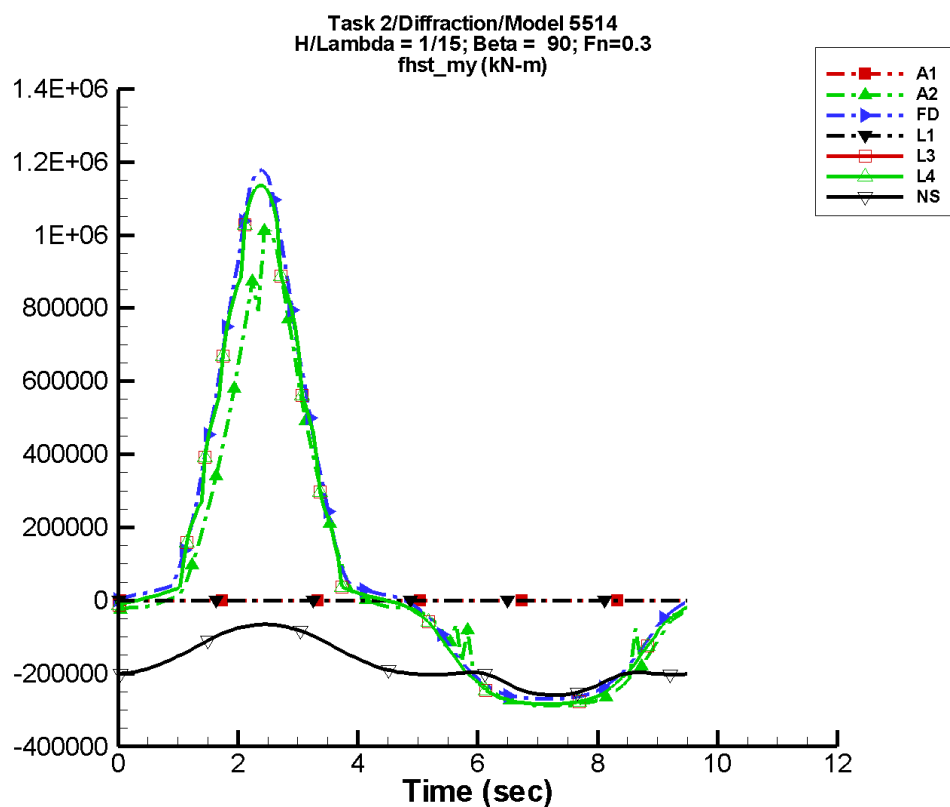
Table H-939. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.66E+04	1.09E+05	-8	5.73E+04	72
FD	-4.59E+04	1.35E+05	-6	4.03E+04	79
L1	—	—	—	—	—
L3	-6.03E+04	1.36E+05	-4	4.20E+04	81
L4	-6.03E+04	1.36E+05	-4	4.20E+04	81
NF	—	—	—	—	—
NS	-1.81E+05	3.11E+04	-5	1.78E+04	-99

Table H-940. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.42E+05	3.42E+05	-2.42E+05	3.75E+04
FD	-2.25E+05	6.45E+04	-2.23E+05	6.32E+04
L1	—	—	—	—
L3	-2.40E+05	5.16E+04	-2.39E+05	5.11E+04
L4	-2.40E+05	5.16E+04	-2.39E+05	5.11E+04
NF	—	—	—	—
NS	-2.08E+05	-1.27E+05	-2.07E+05	-1.29E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-471. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

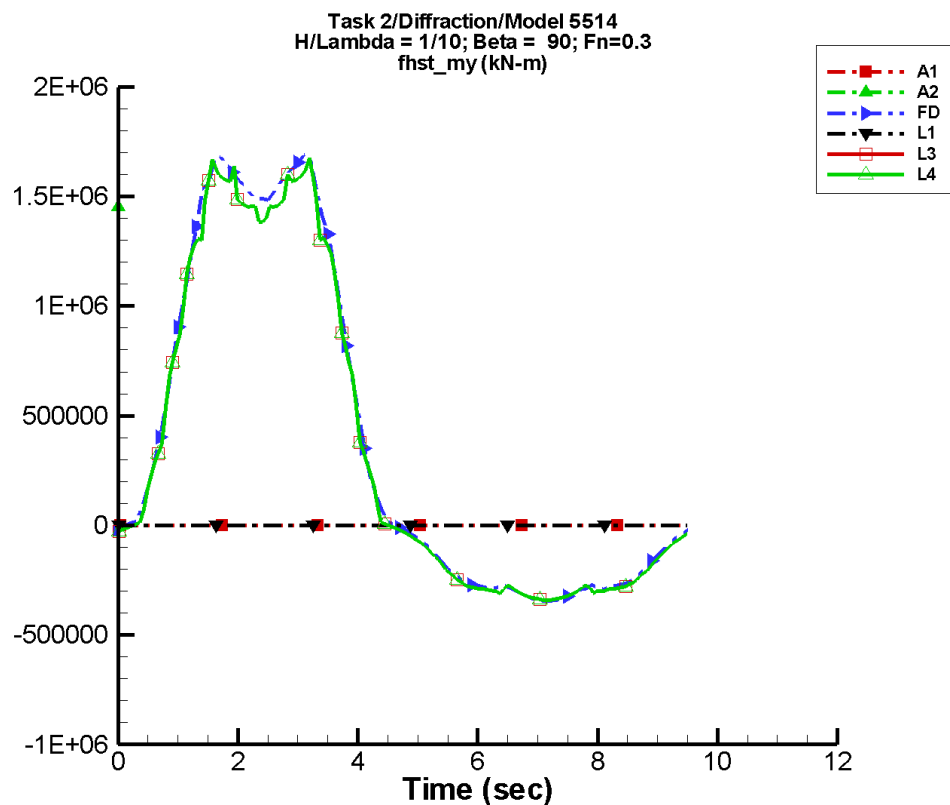
Table H-941. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.85E+04	3.96E+05	-11	1.54E+05	-116
FD	9.02E+04	4.83E+05	-5	2.56E+05	-101
L1	—	—	—	—	—
L3	7.37E+04	4.87E+05	-6	2.14E+05	-93
L4	7.37E+04	4.87E+05	-6	2.14E+05	-93
NF	—	—	—	—	—
NS	-1.75E+05	7.54E+04	-5	2.16E+04	-97

Table H-942. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.88E+05	1.01E+06	-2.86E+05	8.76E+05
FD	-2.70E+05	1.18E+06	-2.69E+05	1.09E+06
L1	—	—	—	—
L3	-2.84E+05	1.14E+06	-2.84E+05	1.11E+06
L4	-2.84E+05	1.14E+06	-2.84E+05	1.11E+06
NF	—	—	—	—
NS	-2.58E+05	-6.54E+04	-2.58E+05	-6.70E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-472. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

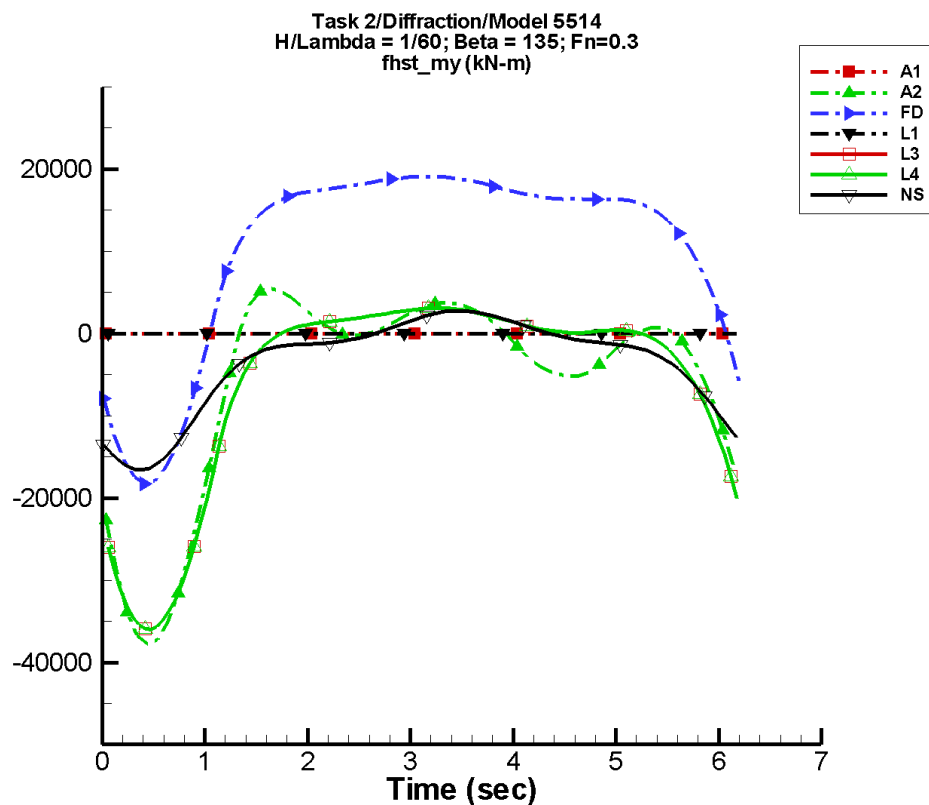
Table H-943. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.40E+05	2.27E+06	44	6.11E+05	-134
FD	3.66E+05	9.87E+05	-6	3.86E+05	-102
L1	—	—	—	—	—
L3	3.36E+05	9.61E+05	-4	3.66E+05	-95
L4	3.36E+05	9.61E+05	-4	3.66E+05	-95
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-944. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	1.45E+06	1.49E+06	1.45E+06	1.49E+06
FD	-3.44E+05	1.69E+06	-3.33E+05	1.61E+06
L1	—	—	—	—
L3	-3.40E+05	1.68E+06	-3.39E+05	1.59E+06
L4	-3.40E+05	1.68E+06	-3.39E+05	1.59E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-473. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-945. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

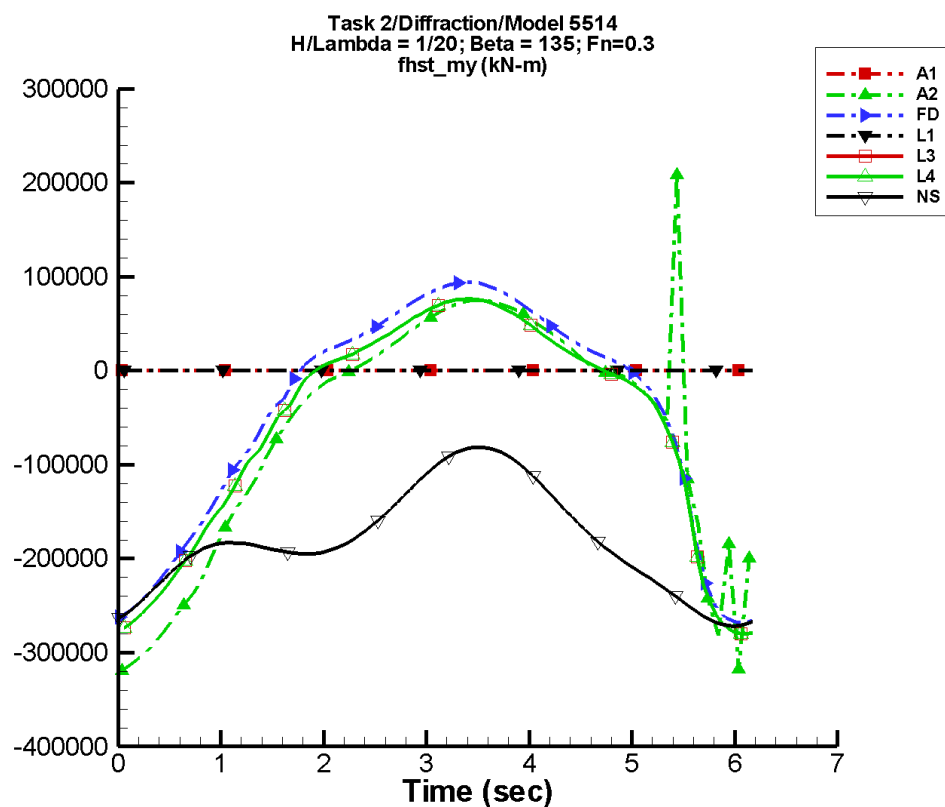
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.41E+03	1.29E+04	-112	1.02E+04	-160
FD	9.88E+03	1.38E+04	-132	8.22E+03	179
L1	—	—	—	—	—
L3	-6.62E+03	1.47E+04	-124	9.49E+03	-166
L4	-6.62E+03	1.47E+04	-124	9.49E+03	-166
NF	—	—	—	—	—
NS	-3.65E+03	7.40E+03	-109	3.22E+03	-125

Table H-946. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.78E+04	5.50E+03	-3.31E+04	3.82E+03
FD	-1.83E+04	1.91E+04	-1.50E+04	1.89E+04
L1	—	—	—	—
L3	-3.60E+04	3.08E+03	-3.49E+04	3.02E+03
L4	-3.60E+04	3.08E+03	-3.49E+04	3.02E+03
NF	—	—	—	—
NS	-1.66E+04	2.76E+03	-1.60E+04	2.65E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-474. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

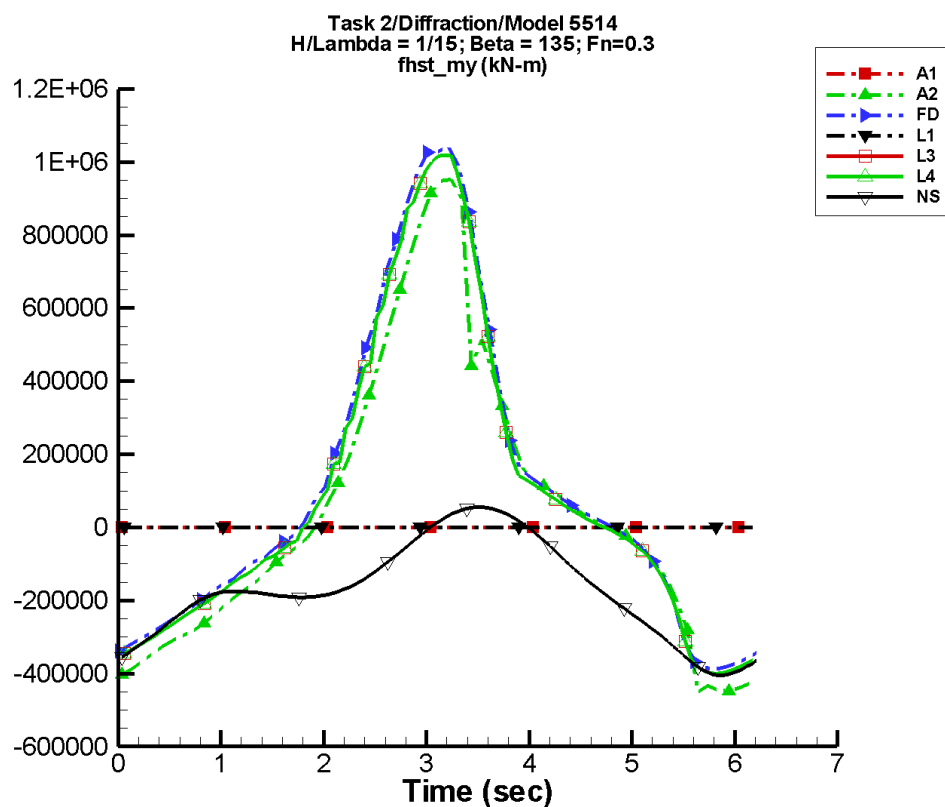
Table H-947. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.47E+04	1.64E+05	-117	5.44E+04	-131
FD	-4.54E+04	1.59E+05	-122	3.96E+04	-138
L1	—	—	—	—	—
L3	-5.83E+04	1.57E+05	-111	4.47E+04	-117
L4	-5.83E+04	1.57E+05	-111	4.47E+04	-117
NF	—	—	—	—	—
NS	-1.81E+05	7.03E+04	-96	3.33E+04	0

Table H-948. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.21E+05	2.08E+05	-3.13E+05	7.01E+04
FD	-2.68E+05	9.43E+04	-2.58E+05	8.99E+04
L1	—	—	—	—
L3	-2.80E+05	7.64E+04	-2.78E+05	7.49E+04
L4	-2.80E+05	7.64E+04	-2.78E+05	7.49E+04
NF	—	—	—	—
NS	-2.72E+05	-8.12E+04	-2.69E+05	-8.37E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-475. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

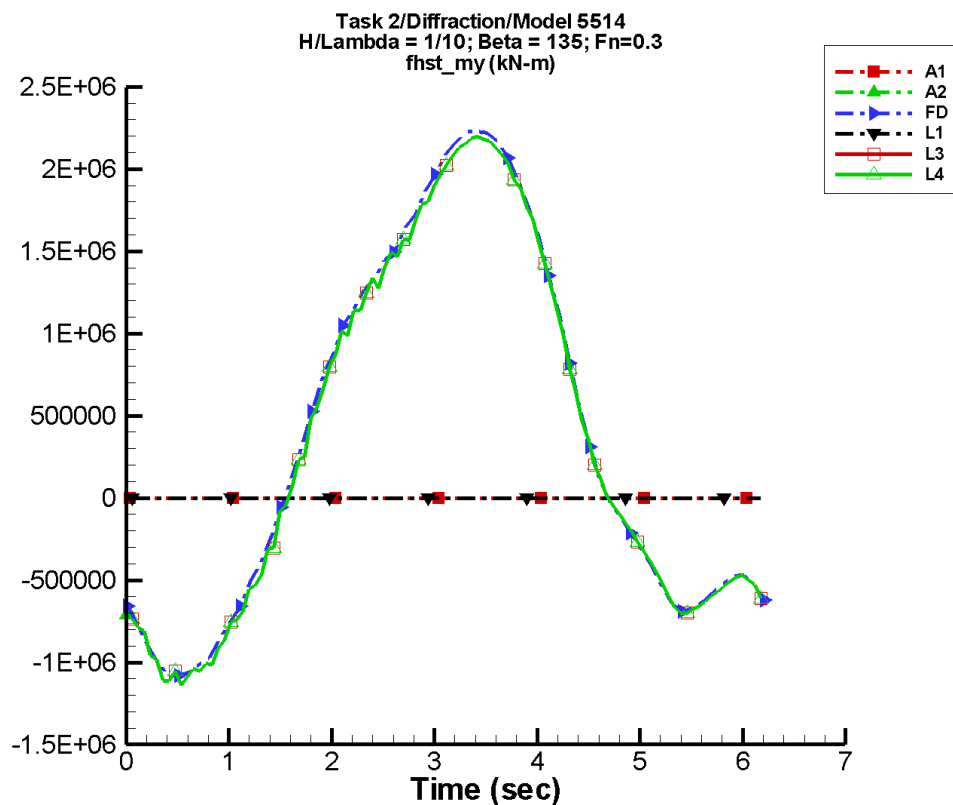
Table H-949. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	4.70E+04	4.97E+05	-99	1.16E+05	79
FD	9.97E+04	5.32E+05	-109	1.95E+05	52
L1	—	—	—	—	—
L3	8.74E+04	5.23E+05	-98	1.61E+05	77
L4	8.74E+04	5.23E+05	-98	1.61E+05	77
NF	—	—	—	—	—
NS	-1.72E+05	1.69E+05	-94	7.89E+04	-4

Table H-950. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.50E+05	9.52E+05	-4.24E+05	7.95E+05
FD	-3.89E+05	1.04E+06	-3.62E+05	9.44E+05
L1	—	—	—	—
L3	-4.00E+05	1.02E+06	-3.94E+05	9.84E+05
L4	-4.00E+05	1.02E+06	-3.94E+05	9.84E+05
NF	—	—	—	—
NS	-4.05E+05	5.49E+04	-4.00E+05	5.18E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-476. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

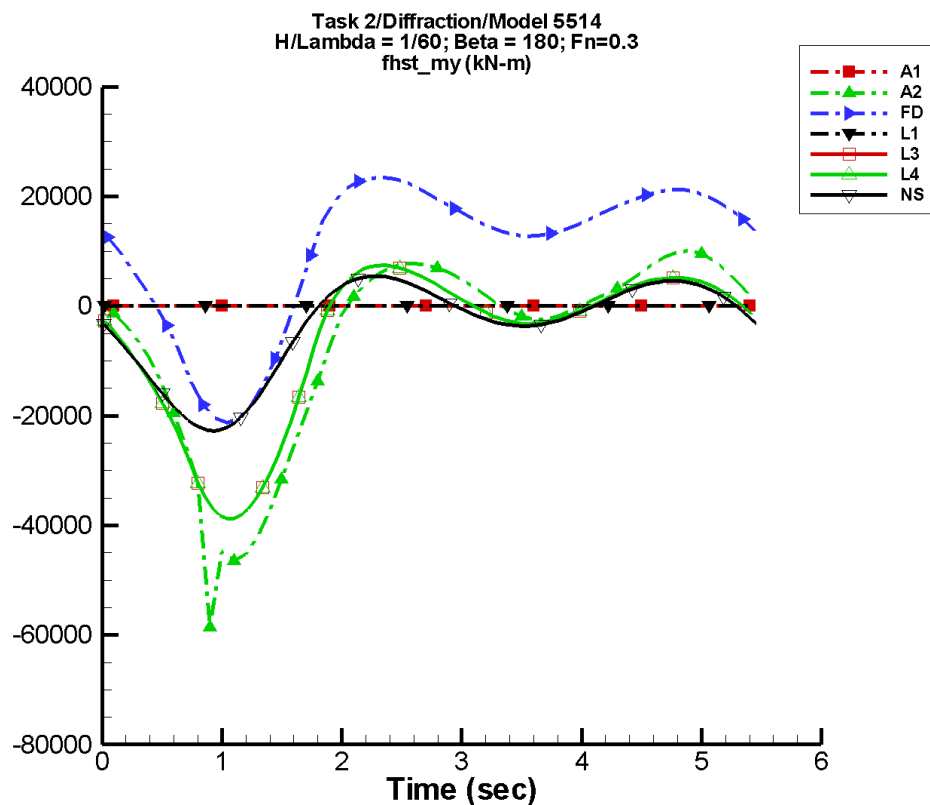
Table H-951. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.32E+05	6.11E+05	-166	4.32E+05	27
FD	3.68E+05	1.54E+06	-119	2.80E+05	39
L1	—	—	—	—	—
L3	3.34E+05	1.52E+06	-108	3.02E+05	70
L4	3.34E+05	1.52E+06	-108	3.02E+05	70
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-952. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.13E+05	-7.03E+05	-7.13E+05	-7.03E+05
FD	-1.08E+06	2.24E+06	-9.83E+05	2.15E+06
L1	—	—	—	—
L3	-1.14E+06	2.19E+06	-1.07E+06	2.16E+06
L4	-1.14E+06	2.19E+06	-1.07E+06	2.16E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-477. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-953. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

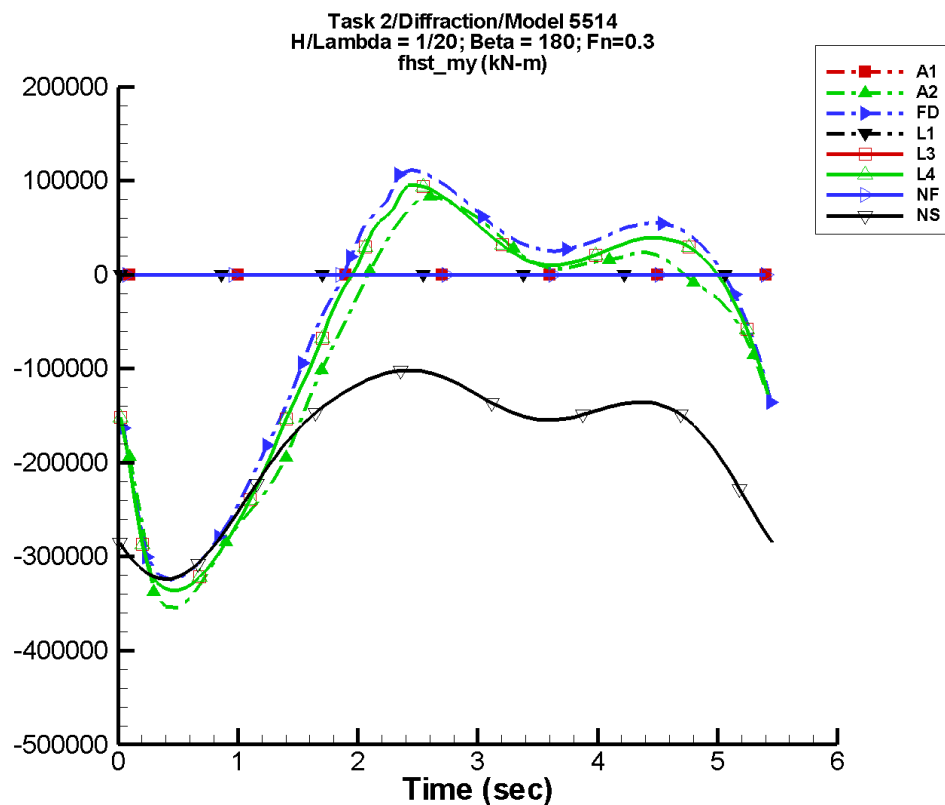
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.89E+03	1.69E+04	-161	1.56E+04	137
FD	1.02E+04	1.30E+04	-61	1.27E+04	-34
L1	—	—	—	—	—
L3	-5.85E+03	1.38E+04	-136	1.36E+04	-175
L4	-5.85E+03	1.38E+04	-136	1.36E+04	-175
NF	—	—	—	—	—
NS	-3.81E+03	8.01E+03	-147	9.11E+03	158

Table H-954. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.87E+04	1.01E+04	-4.15E+04	8.15E+03
FD	-2.13E+04	2.35E+04	-1.69E+04	2.25E+04
L1	—	—	—	—
L3	-3.89E+04	7.43E+03	-3.72E+04	6.99E+03
L4	-3.89E+04	7.43E+03	-3.72E+04	6.99E+03
NF	—	—	—	—
NS	-2.28E+04	5.47E+03	-2.20E+04	5.17E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-478. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

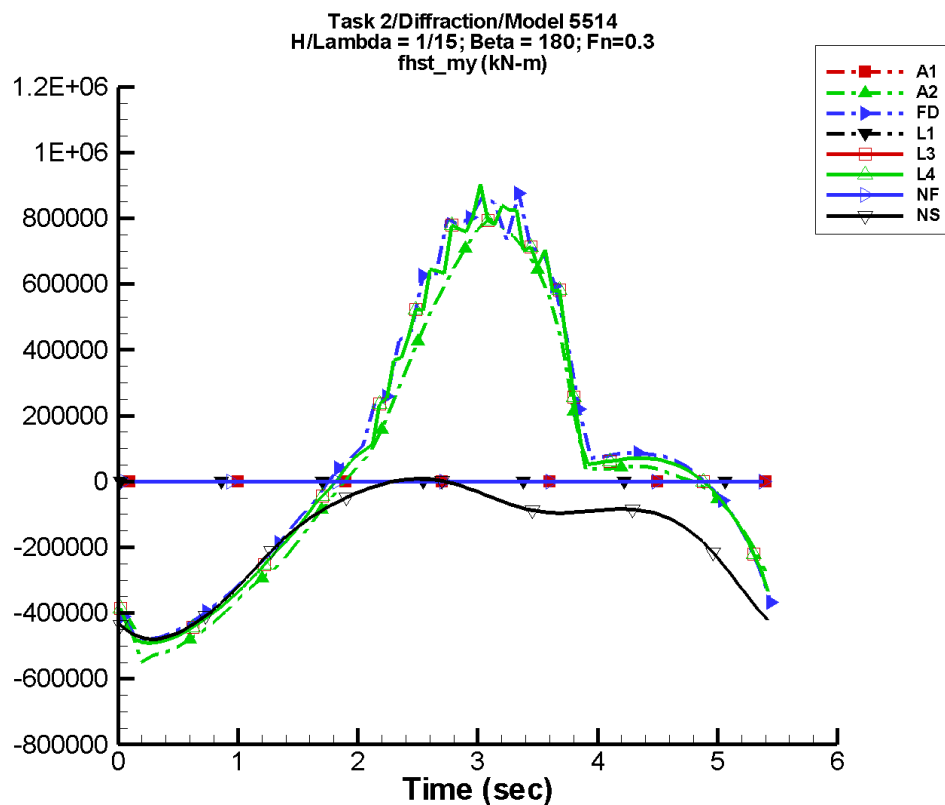
Table H-955. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-7.58E+04	1.74E+05	-126	8.50E+04	-179
FD	-4.51E+04	1.66E+05	-39	9.61E+04	-2
L1	—	—	—	—	—
L3	-6.10E+04	1.67E+05	-108	9.41E+04	-141
L4	-6.10E+04	1.67E+05	-108	9.41E+04	-141
NF	—	—	—	—	—
NS	-1.81E+05	8.48E+04	-109	5.04E+04	-154

Table H-956. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.55E+05	8.36E+04	-3.24E+05	7.09E+04
FD	-3.25E+05	1.11E+05	-2.99E+05	9.52E+04
L1	—	—	—	—
L3	-3.36E+05	9.58E+04	-3.31E+05	8.81E+04
L4	-3.36E+05	9.58E+04	-3.31E+05	8.81E+04
NF	—	—	—	—
NS	-3.24E+05	-1.02E+05	-3.20E+05	-1.03E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-479. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

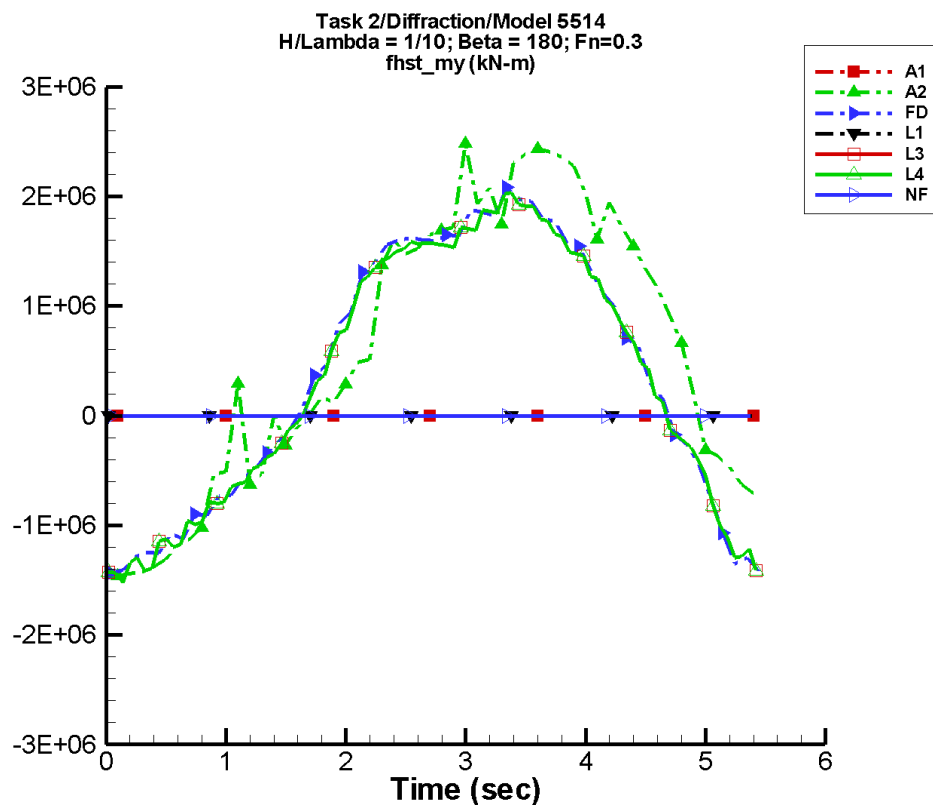
Table H-957. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.75E+04	5.40E+05	-113	9.54E+04	94
FD	1.03E+05	5.57E+05	-25	1.16E+05	-98
L1	—	—	—	—	—
L3	7.16E+04	5.58E+05	-93	1.17E+05	112
L4	7.16E+04	5.58E+05	-93	1.17E+05	112
NF	—	—	—	—	—
NS	-1.73E+05	2.00E+05	-106	9.20E+04	-148

Table H-958. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.48E+05	7.99E+05	-4.88E+05	7.26E+05
FD	-4.79E+05	9.34E+05	-4.48E+05	8.13E+05
L1	—	—	—	—
L3	-4.92E+05	9.03E+05	-4.79E+05	8.11E+05
L4	-4.92E+05	9.03E+05	-4.79E+05	8.11E+05
NF	—	—	—	—
NS	-4.80E+05	7.76E+03	-4.75E+05	6.15E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-480. Time history of  $M_y^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

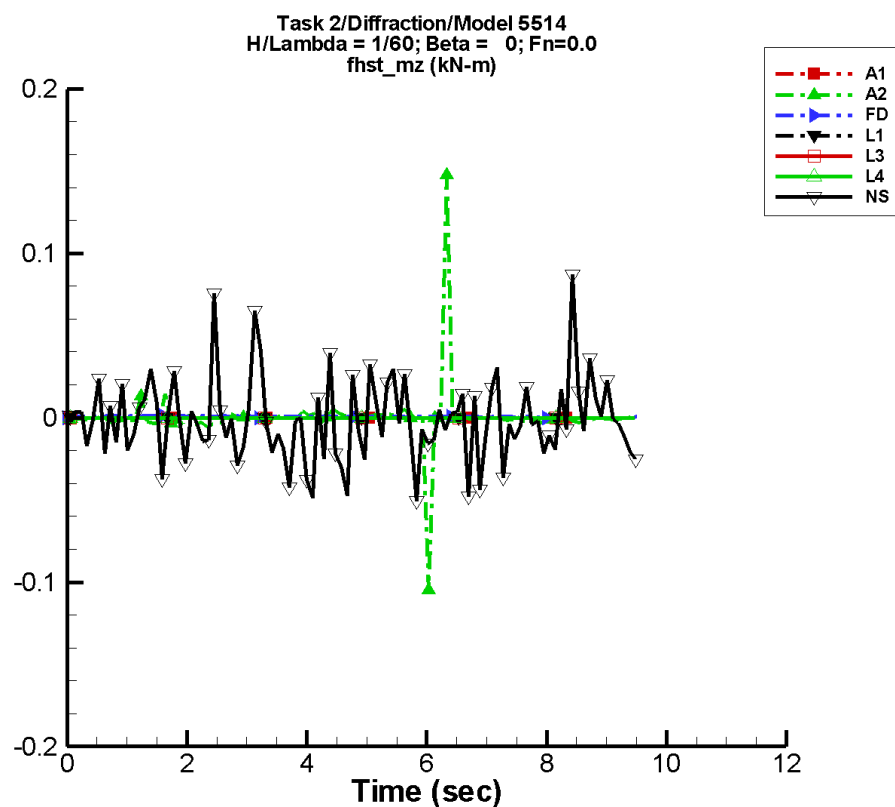
Table H-959. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	5.90E+05	1.73E+06	-125	3.12E+05	-73
FD	3.68E+05	1.65E+06	-23	1.52E+05	105
L1	—	—	—	—	—
L3	3.45E+05	1.62E+06	-93	1.37E+05	-37
L4	3.45E+05	1.62E+06	-93	1.37E+05	-37
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-960. Minimum and maximum of  $M_y^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.46E+06	2.49E+06	-1.46E+06	2.24E+06
FD	-1.43E+06	2.09E+06	-1.38E+06	1.88E+06
L1	—	—	—	—
L3	-1.52E+06	2.04E+06	-1.44E+06	1.92E+06
L4	-1.52E+06	2.04E+06	-1.44E+06	1.92E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-481. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-961. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

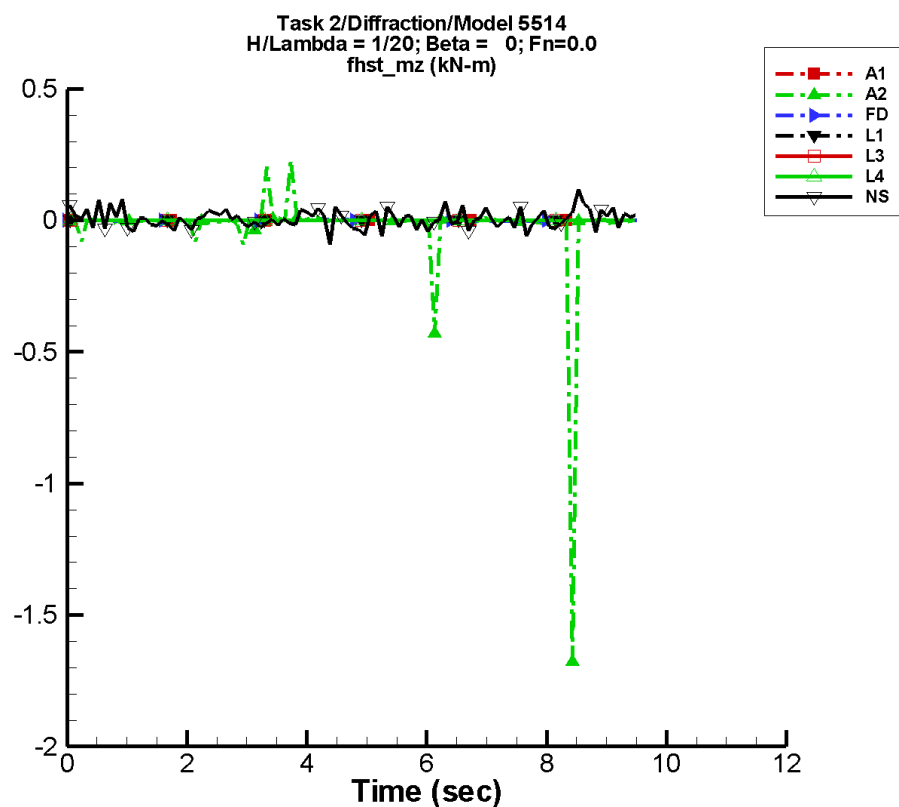
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	2.55E-04	1.44E-03	-135	8.99E-04	-21
FD	4.77E-04	3.39E-04	-28	3.14E-04	-29
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.27E-03	4.74E-03	83	1.65E-03	-157

Table H-962. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-0.105	0.148	-5.60E-03	1.20E-02
FD	-3.98E-04	1.23E-03	-3.76E-04	1.03E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.06E-02	8.69E-02	-1.75E-02	2.43E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-482. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

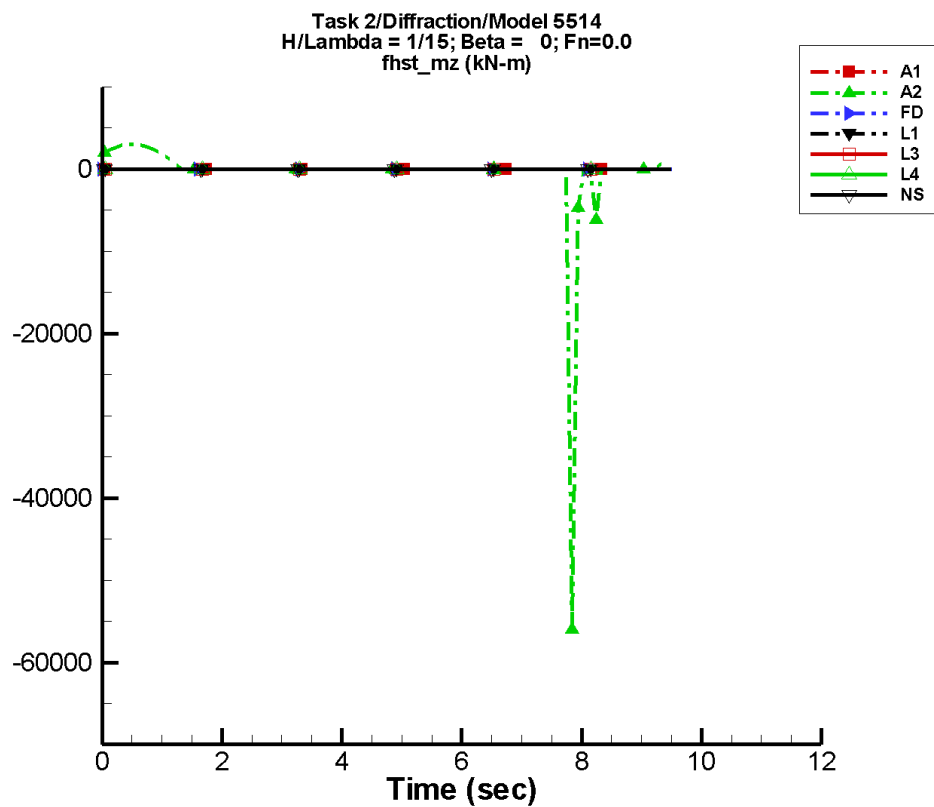
Table H-963. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.07E-02	4.39E-02	-45	1.89E-02	2
FD	2.40E-04	6.52E-04	-50	2.64E-04	26
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	4.69E-03	8.73E-03	110	6.89E-03	129

Table H-964. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.68	0.231	-0.229	4.92E-02
FD	-2.29E-03	2.35E-03	-1.27E-03	1.29E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.26E-02	0.117	-1.49E-02	4.04E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-483. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

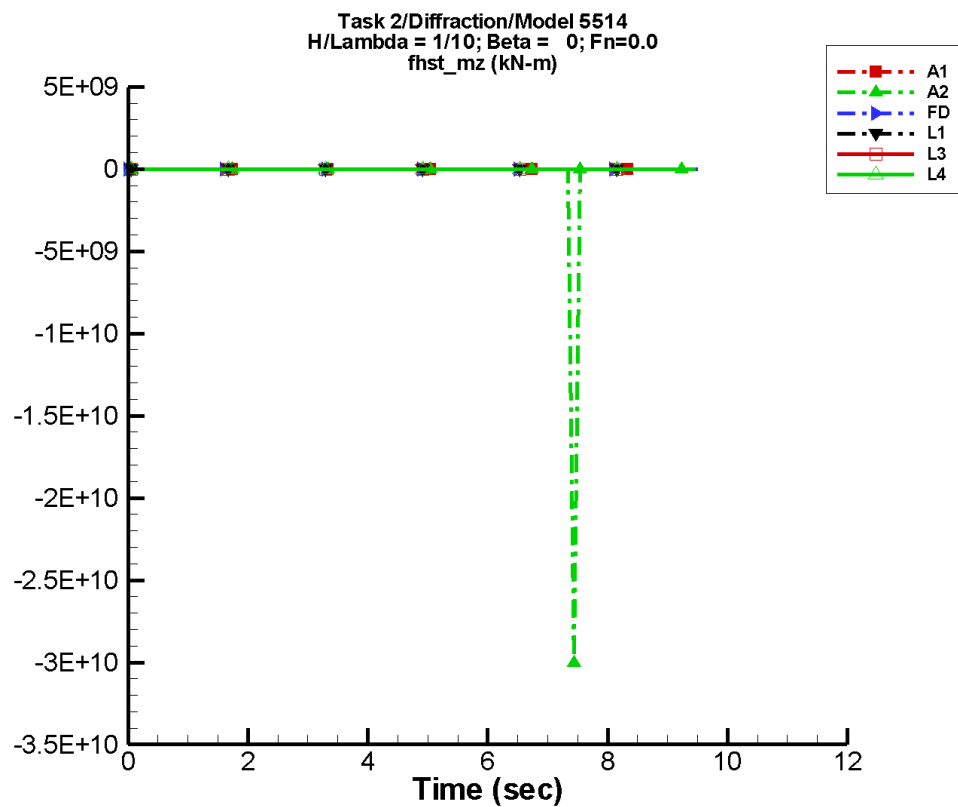
Table H-965. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-391.	1.33E+03	-5	2.03E+03	37
FD	4.90E-04	9.47E-04	-91	3.78E-04	-1
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.16E-03	2.56E-03	-60	7.41E-03	104

Table H-966. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.60E+04	3.02E+03	-8.49E+03	2.82E+03
FD	-3.27E-03	3.16E-03	-1.21E-03	1.81E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.29E-02	0.105	-2.36E-02	3.83E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-484. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

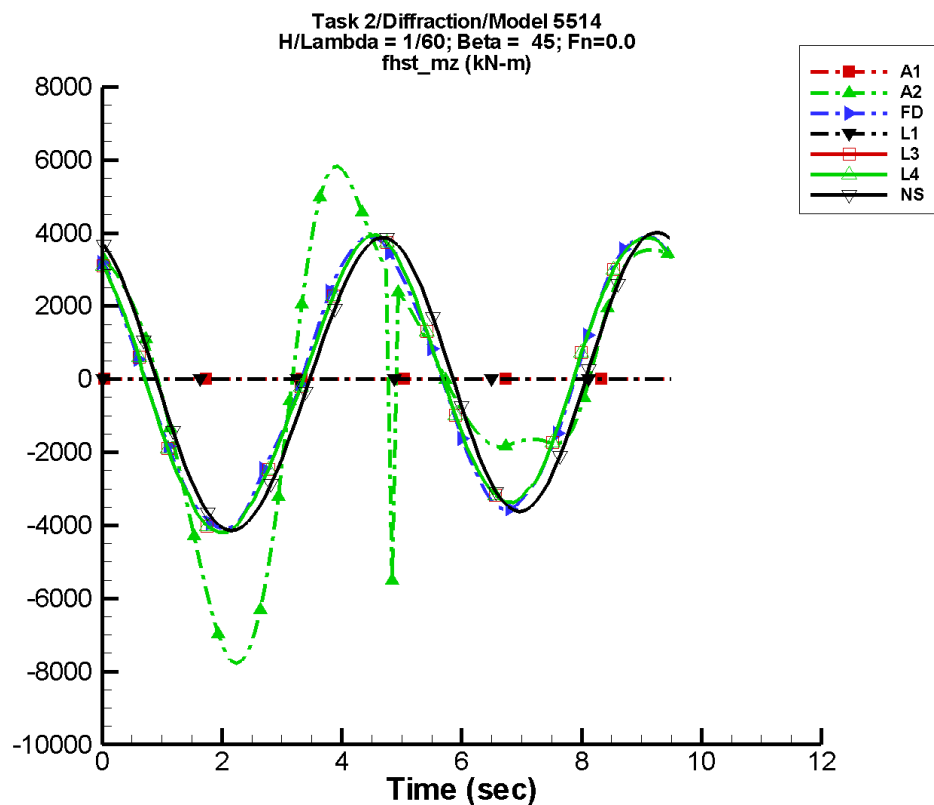
Table H-967. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.40E+08	6.22E+08	-20	5.83E+08	61
FD	5.55E-04	7.30E-04	-101	7.52E-04	-19
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-968. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.00E+10	1.82E+05	-4.00E+09	3.42E+08
FD	-2.07E-03	3.60E-03	-9.57E-04	2.30E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-485. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-969. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

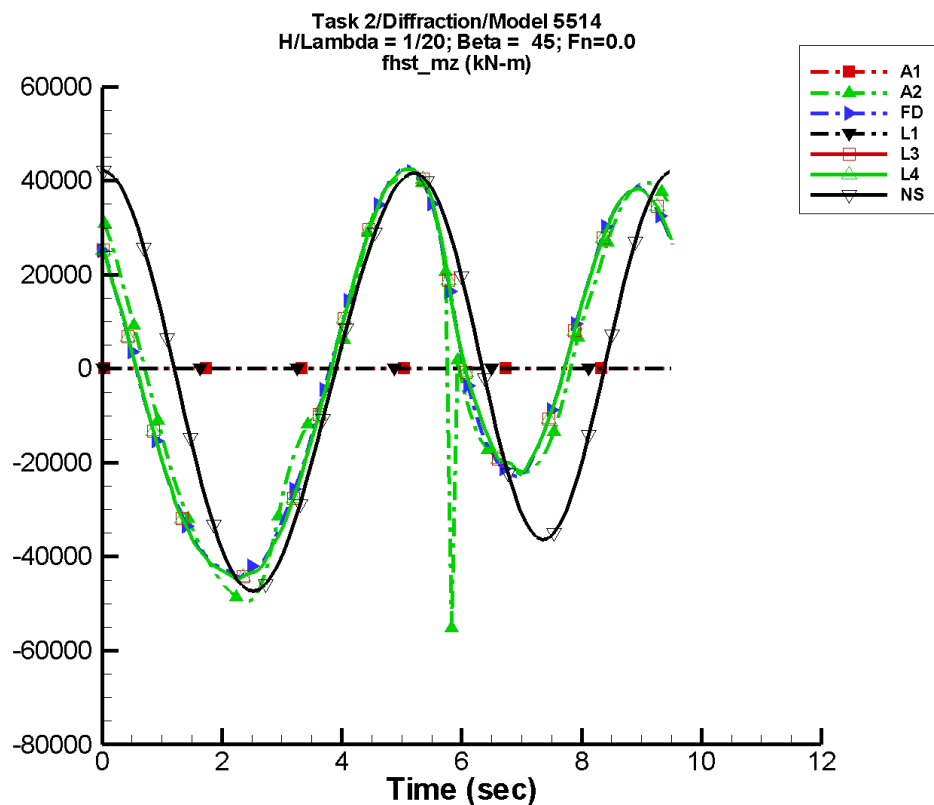
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-12.7	1.03E+03	-168	4.35E+03	104
FD	-16.8	457.	-176	3.77E+03	107
L1	—	—	—	—	—
L3	-8.76	590.	-173	3.78E+03	110
L4	-8.76	590.	-173	3.78E+03	110
NF	—	—	—	—	—
NS	2.54	441.	-173	3.87E+03	105

Table H-970. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.79E+03	5.83E+03	-7.33E+03	5.43E+03
FD	-4.09E+03	3.89E+03	-3.93E+03	3.75E+03
L1	—	—	—	—
L3	-4.19E+03	3.94E+03	-4.14E+03	3.87E+03
L4	-4.19E+03	3.94E+03	-4.14E+03	3.87E+03
NF	—	—	—	—
NS	-4.14E+03	4.02E+03	-4.14E+03	3.85E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-486. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

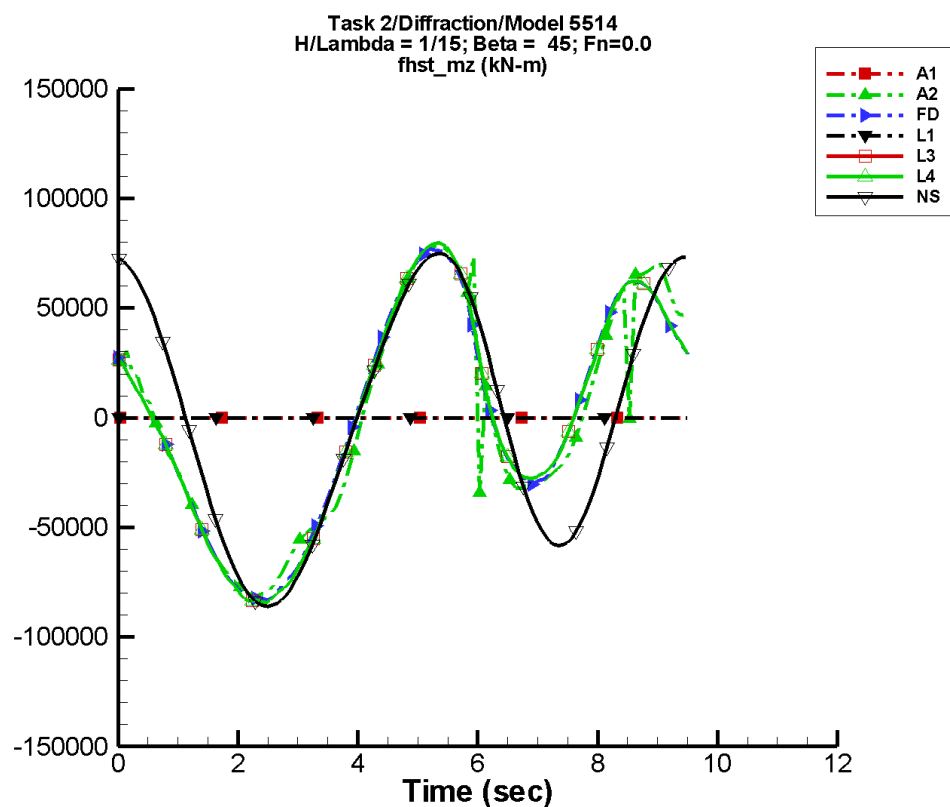
Table H-971. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-841.	1.59E+04	176	3.50E+04	95
FD	-624.	1.90E+04	-177	3.14E+04	94
L1	—	—	—	—	—
L3	-395.	1.99E+04	-173	3.28E+04	98
L4	-395.	1.99E+04	-173	3.28E+04	98
NF	—	—	—	—	—
NS	-21.9	9.43E+03	179	4.09E+04	76

Table H-972. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.51E+04	4.10E+04	-4.76E+04	4.08E+04
FD	-4.47E+04	4.31E+04	-4.30E+04	4.09E+04
L1	—	—	—	—
L3	-4.49E+04	4.25E+04	-4.42E+04	4.20E+04
L4	-4.49E+04	4.25E+04	-4.42E+04	4.20E+04
NF	—	—	—	—
NS	-4.73E+04	4.22E+04	-4.57E+04	4.19E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-487. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

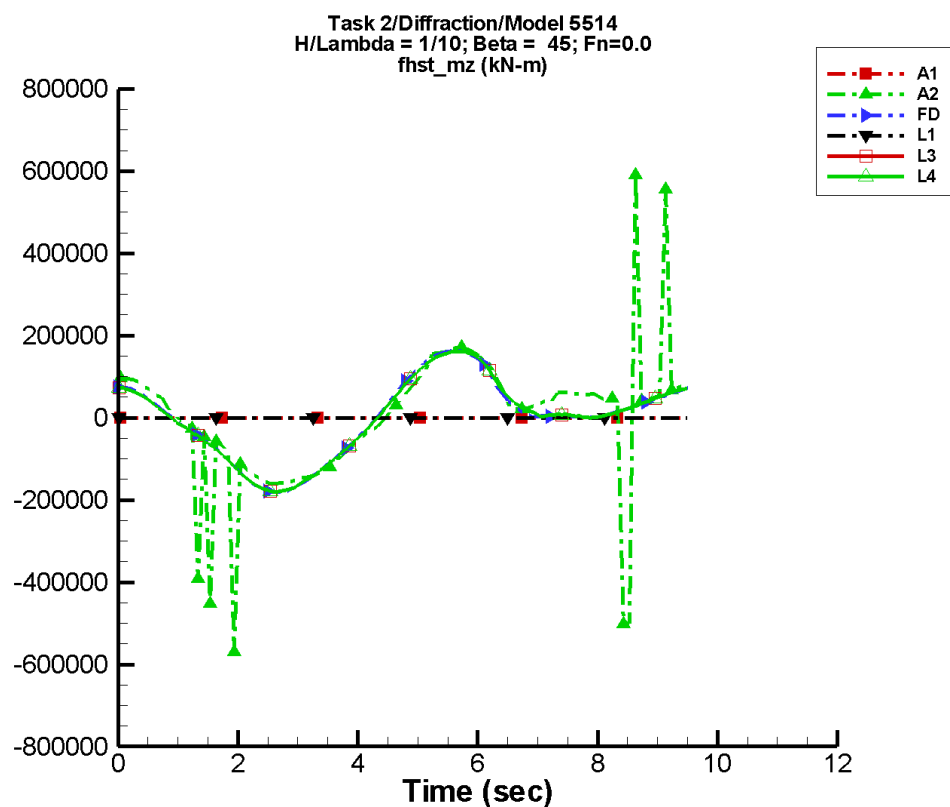
Table H-973. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.07E+03	3.96E+04	-177	5.16E+04	86
FD	-942.	4.19E+04	-177	4.80E+04	84
L1	—	—	—	—	—
L3	-525.	4.32E+04	-173	4.96E+04	89
L4	-525.	4.32E+04	-173	4.96E+04	89
NF	—	—	—	—	—
NS	-69.2	2.43E+04	179	6.92E+04	76

Table H-974. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.30E+05	7.85E+04	-7.83E+04	7.56E+04
FD	-8.40E+04	7.68E+04	-8.16E+04	7.35E+04
L1	—	—	—	—
L3	-8.44E+04	7.97E+04	-8.34E+04	7.83E+04
L4	-8.44E+04	7.97E+04	-8.34E+04	7.83E+04
NF	—	—	—	—
NS	-8.60E+04	7.50E+04	-8.45E+04	7.31E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-488. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

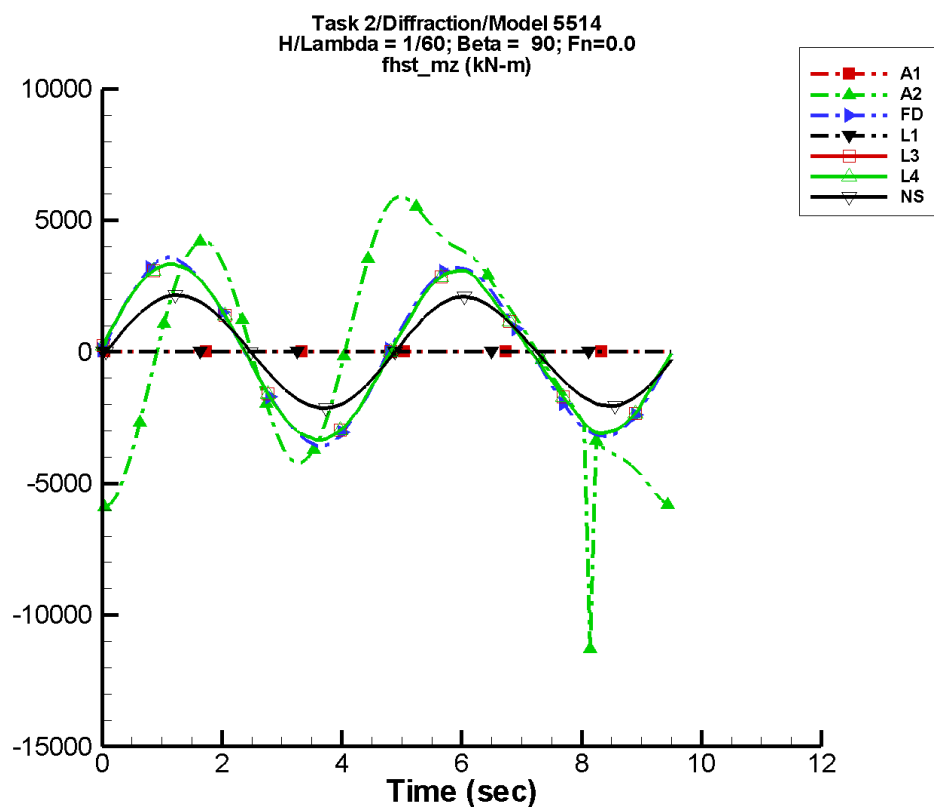
Table H-975. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	70.9	1.19E+05	-179	8.90E+04	67
FD	-357.	9.18E+04	-179	9.20E+04	46
L1	—	—	—	—	—
L3	-328.	9.45E+04	-177	9.02E+04	50
L4	-328.	9.45E+04	-177	9.02E+04	50
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-976. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.93E+05	5.91E+05	-1.99E+05	1.67E+05
FD	-1.81E+05	1.63E+05	-1.74E+05	1.57E+05
L1	—	—	—	—
L3	-1.81E+05	1.61E+05	-1.77E+05	1.59E+05
L4	-1.81E+05	1.61E+05	-1.77E+05	1.59E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-489. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-977. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

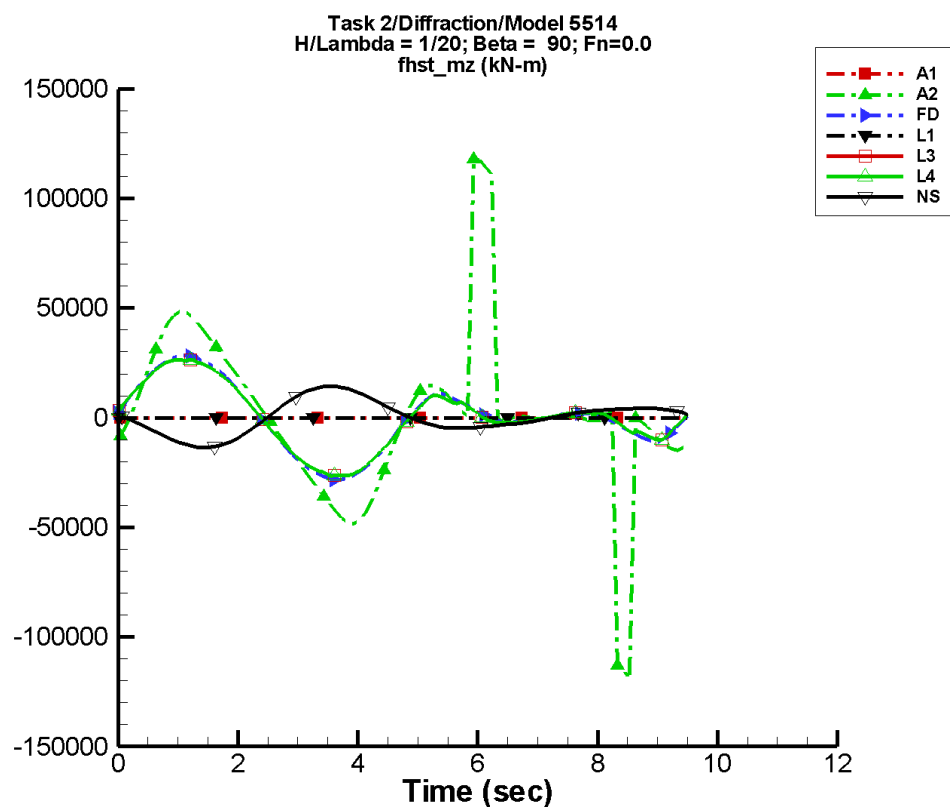
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-88.3	3.31E+03	-93	3.60E+03	-23
FD	-1.11	180.	84	3.34E+03	-11
L1	—	—	—	—	—
L3	7.20	225.	89	3.16E+03	-7
L4	7.20	225.	89	3.16E+03	-7
NF	—	—	—	—	—
NS	7.55	61.8	91	2.11E+03	-8

Table H-978. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.13E+04	5.90E+03	-5.72E+03	5.57E+03
FD	-3.59E+03	3.59E+03	-3.39E+03	3.39E+03
L1	—	—	—	—
L3	-3.35E+03	3.34E+03	-3.28E+03	3.27E+03
L4	-3.35E+03	3.34E+03	-3.28E+03	3.27E+03
NF	—	—	—	—
NS	-2.14E+03	2.15E+03	-2.05E+03	2.07E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-490. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

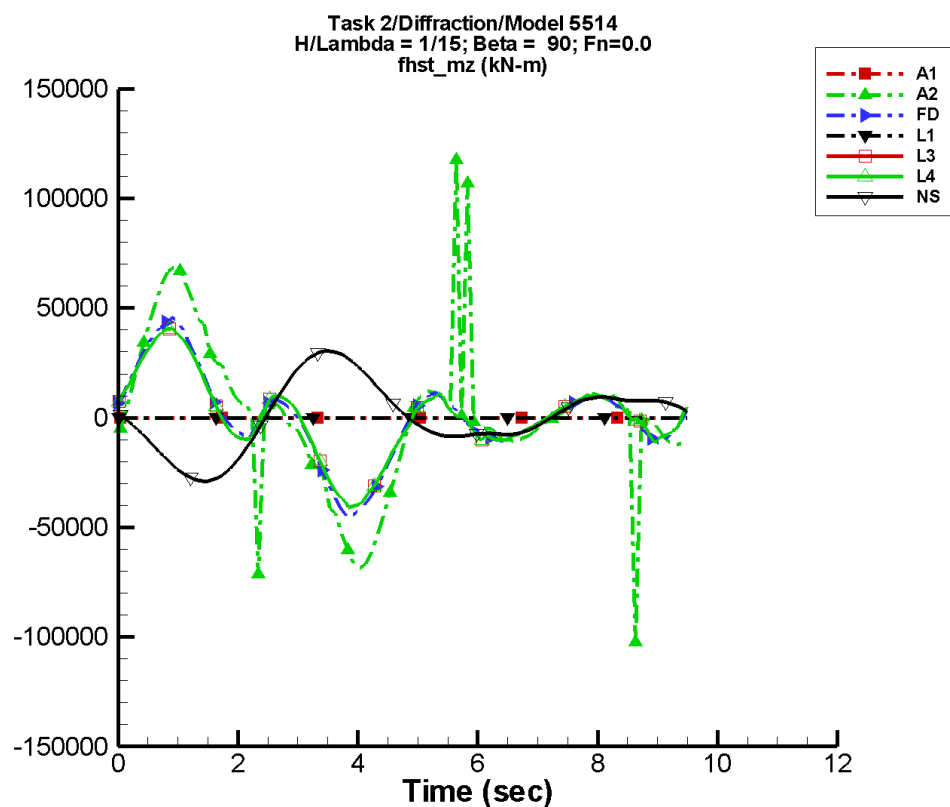
Table H-979. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	4.53E+03	1.01E+04	92	4.13E+04	-6
FD	-137.	1.01E+04	85	1.76E+04	-12
L1	—	—	—	—	—
L3	69.1	9.95E+03	85	1.55E+04	-4
L4	69.1	9.95E+03	85	1.55E+04	-4
NF	—	—	—	—	—
NS	64.3	3.12E+03	-98	9.28E+03	168

Table H-980. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.19E+05	5.78E+05	-4.43E+04	8.55E+04
FD	-2.84E+04	2.83E+04	-2.70E+04	2.71E+04
L1	—	—	—	—
L3	-2.65E+04	2.65E+04	-2.62E+04	2.62E+04
L4	-2.65E+04	2.65E+04	-2.62E+04	2.62E+04
NF	—	—	—	—
NS	-1.36E+04	1.43E+04	-1.30E+04	1.36E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-491. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

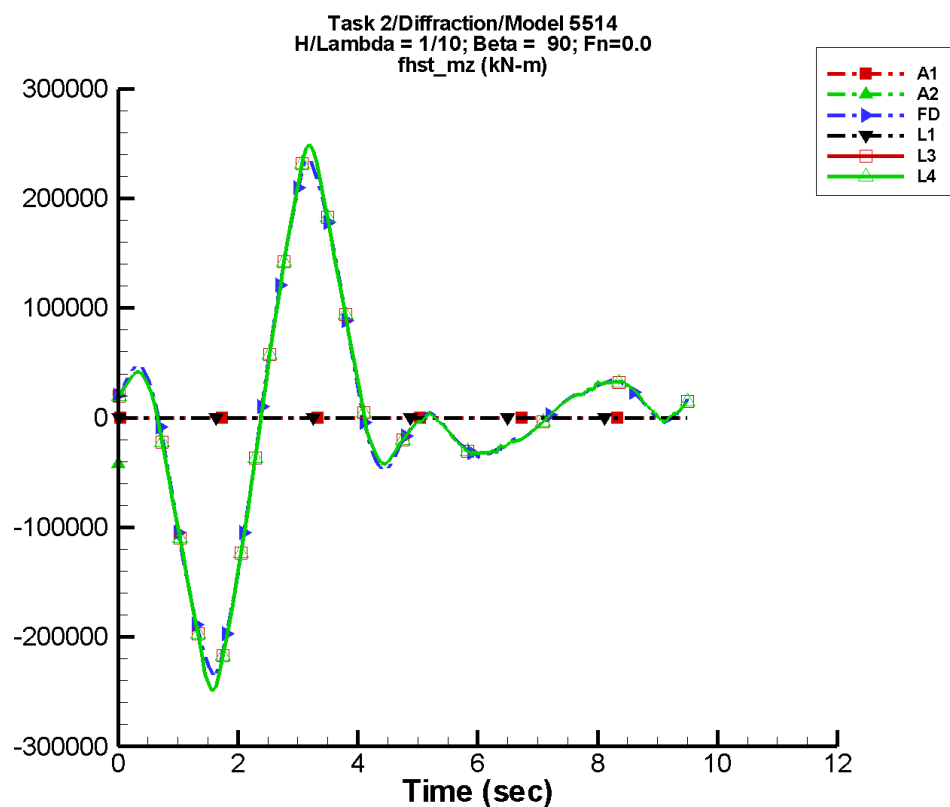
Table H-981. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.10E+03	1.85E+04	86	3.12E+04	-12
FD	10.5	1.73E+04	84	1.44E+04	-11
L1	—	—	—	—	—
L3	372.	1.59E+04	86	1.18E+04	0
L4	372.	1.59E+04	86	1.18E+04	0
NF	—	—	—	—	—
NS	236.	6.67E+03	-99	1.96E+04	170

Table H-982. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.02E+05	1.17E+05	-5.93E+04	5.99E+04
FD	-4.55E+04	4.56E+04	-4.09E+04	3.95E+04
L1	—	—	—	—
L3	-4.10E+04	4.09E+04	-3.87E+04	3.87E+04
L4	-4.10E+04	4.09E+04	-3.87E+04	3.87E+04
NF	—	—	—	—
NS	-2.91E+04	3.04E+04	-2.83E+04	2.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-492. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

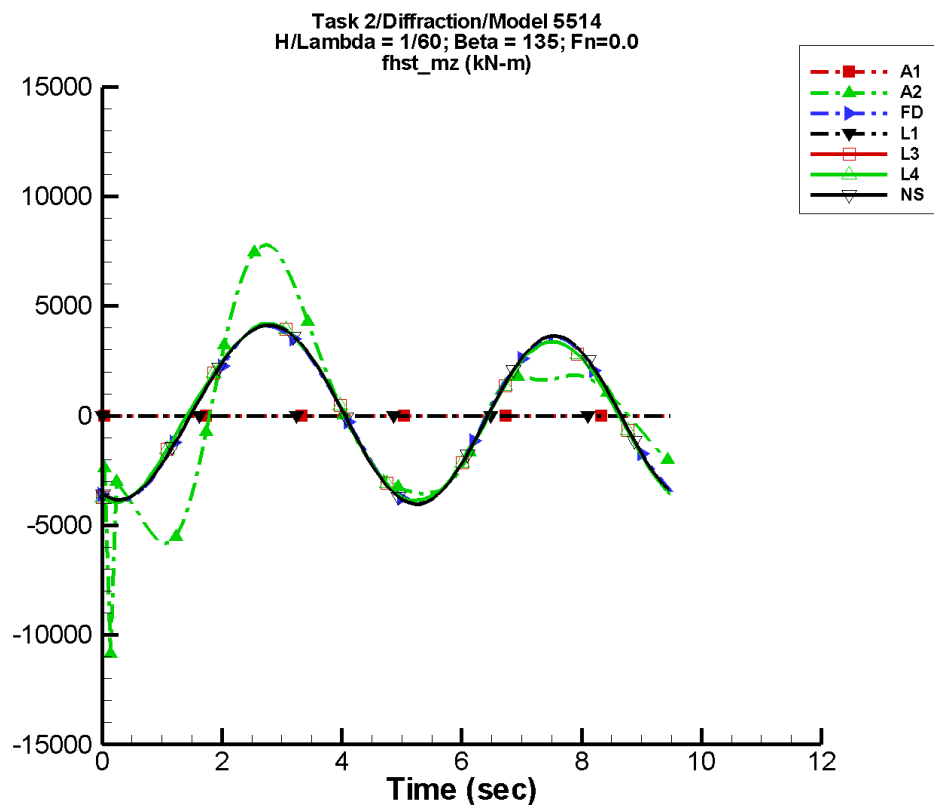
Table H-983. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.49E+04	1.03E+06	-96	2.81E+05	-3
FD	3.79E+03	2.62E+04	-93	1.03E+05	165
L1	—	—	—	—	—
L3	3.00E+03	2.80E+04	-101	9.47E+04	173
L4	3.00E+03	2.80E+04	-101	9.47E+04	173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-984. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.28E+04	-4.21E+04	-7.28E+04	-4.21E+04
FD	-2.37E+05	2.38E+05	-2.02E+05	2.02E+05
L1	—	—	—	—
L3	-2.49E+05	2.49E+05	-2.29E+05	2.29E+05
L4	-2.49E+05	2.49E+05	-2.29E+05	2.29E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-493. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-985. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

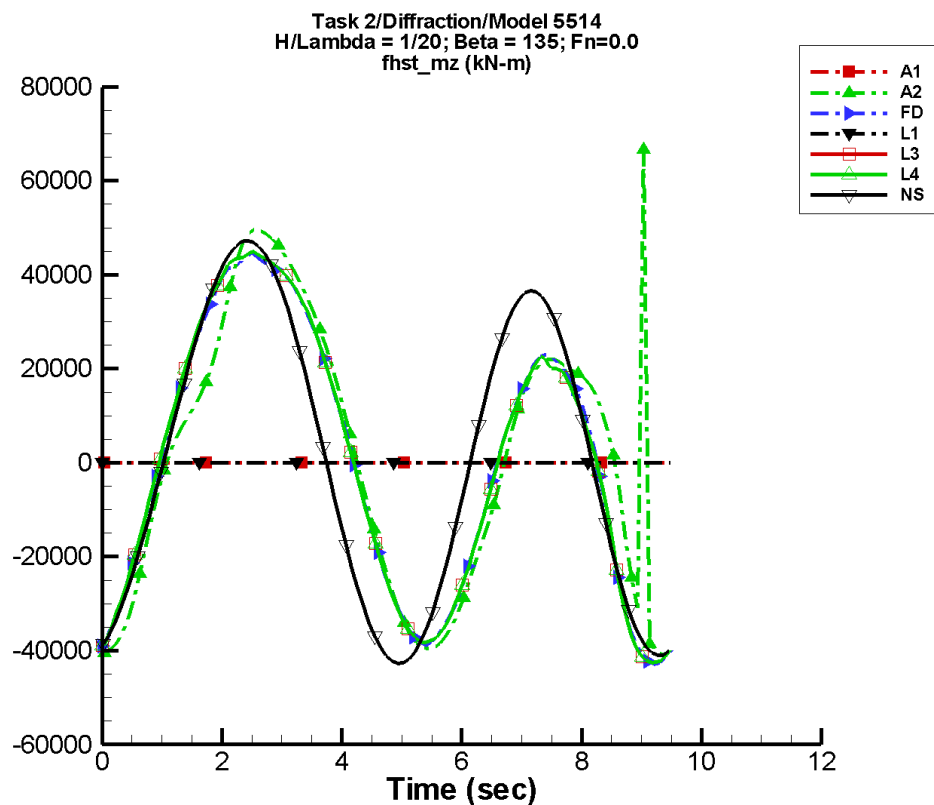
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-136.	1.16E+03	-55	4.57E+03	-144
FD	4.18	453.	-15	3.79E+03	-130
L1	—	—	—	—	—
L3	9.58	592.	-13	3.75E+03	-125
L4	9.58	592.	-13	3.75E+03	-125
NF	—	—	—	—	—
NS	13.0	454.	-3	3.88E+03	-120

Table H-986. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.09E+04	7.79E+03	-5.36E+03	7.31E+03
FD	-3.91E+03	4.09E+03	-3.84E+03	3.93E+03
L1	—	—	—	—
L3	-3.94E+03	4.19E+03	-3.89E+03	4.14E+03
L4	-3.94E+03	4.19E+03	-3.89E+03	4.14E+03
NF	—	—	—	—
NS	-4.04E+03	4.13E+03	-3.87E+03	3.99E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-494. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

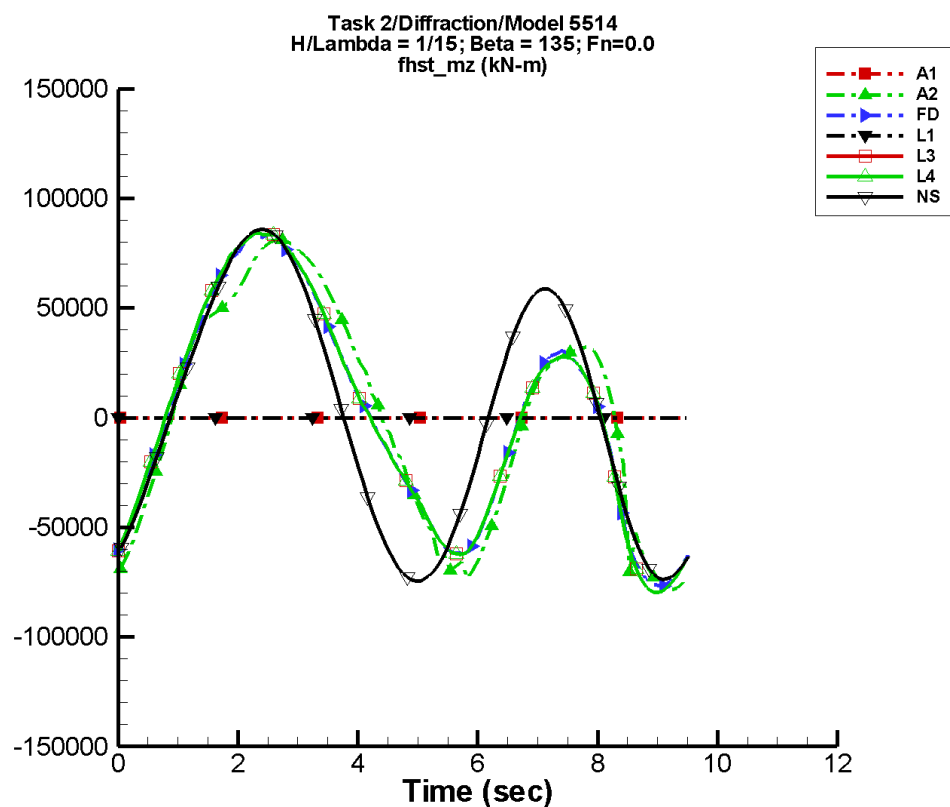
Table H-987. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.14E+03	1.64E+04	-8	3.46E+04	-130
FD	418.	1.89E+04	-13	3.18E+04	-116
L1	—	—	—	—	—
L3	502.	1.97E+04	-12	3.15E+04	-112
L4	502.	1.97E+04	-12	3.15E+04	-112
NF	—	—	—	—	—
NS	219.	9.13E+03	6	4.03E+04	-91

Table H-988. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.10E+04	6.66E+04	-3.99E+04	4.76E+04
FD	-4.30E+04	4.46E+04	-4.09E+04	4.29E+04
L1	—	—	—	—
L3	-4.26E+04	4.49E+04	-4.20E+04	4.41E+04
L4	-4.26E+04	4.49E+04	-4.20E+04	4.41E+04
NF	—	—	—	—
NS	-4.28E+04	4.73E+04	-4.11E+04	4.57E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-495. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

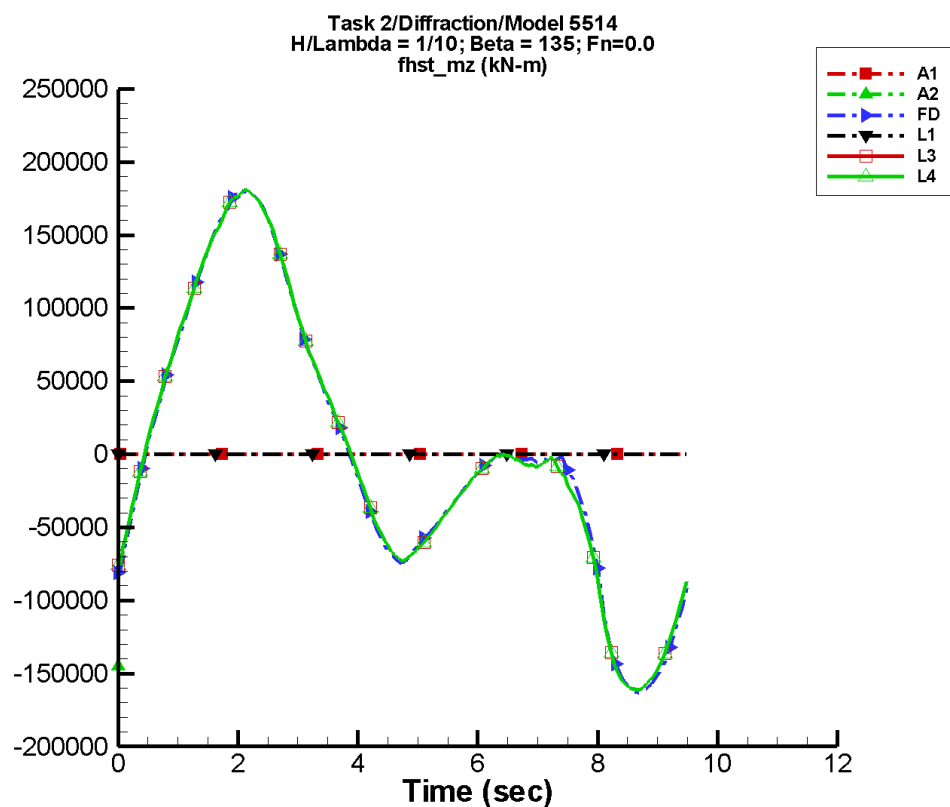
Table H-989. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.01E+03	4.28E+04	-15	5.24E+04	-119
FD	443.	4.17E+04	-12	4.90E+04	-107
L1	—	—	—	—	—
L3	729.	4.30E+04	-11	4.84E+04	-102
L4	729.	4.30E+04	-11	4.84E+04	-102
NF	—	—	—	—	—
NS	543.	2.34E+04	7	6.77E+04	-87

Table H-990. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.85E+04	8.13E+04	-7.53E+04	7.88E+04
FD	-7.67E+04	8.40E+04	-7.36E+04	8.15E+04
L1	—	—	—	—
L3	-7.97E+04	8.42E+04	-7.83E+04	8.34E+04
L4	-7.97E+04	8.42E+04	-7.83E+04	8.34E+04
NF	—	—	—	—
NS	-7.46E+04	8.60E+04	-7.28E+04	8.45E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-496. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

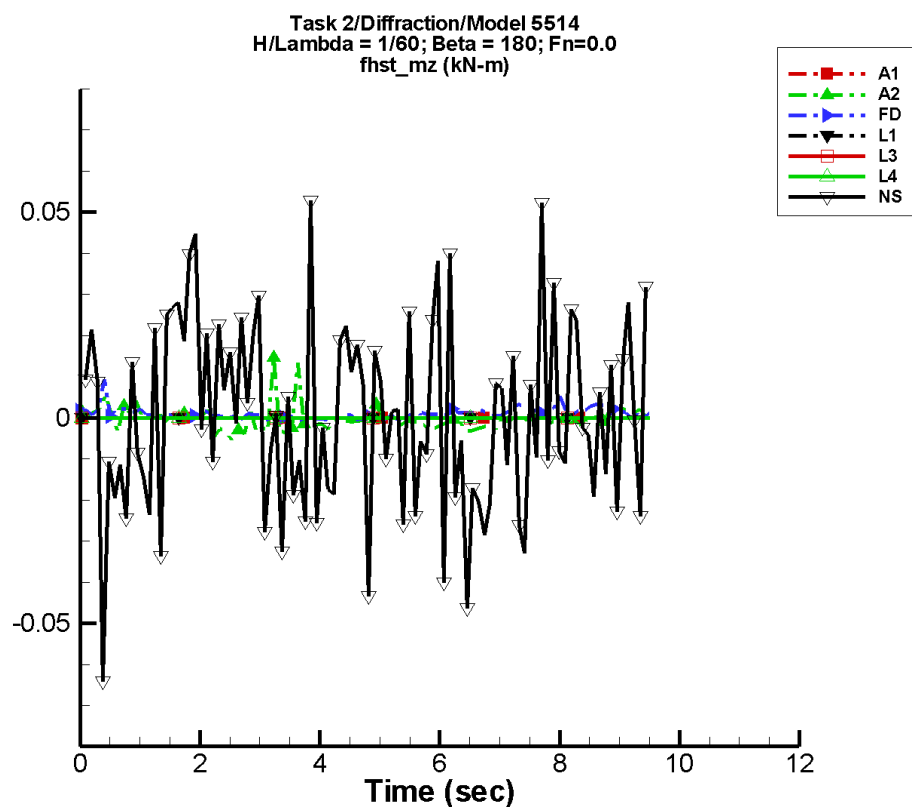
Table H-991. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.77E+05	1.07E+06	40	6.94E+05	-110
FD	957.	9.19E+04	-12	9.11E+04	-68
L1	—	—	—	—	—
L3	1.06E+03	9.40E+04	-10	8.83E+04	-63
L4	1.06E+03	9.40E+04	-10	8.83E+04	-63
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-992. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.45E+05	-1.28E+05	-1.45E+05	-1.28E+05
FD	-1.63E+05	1.81E+05	-1.57E+05	1.74E+05
L1	—	—	—	—
L3	-1.61E+05	1.81E+05	-1.59E+05	1.77E+05
L4	-1.61E+05	1.81E+05	-1.59E+05	1.77E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-497. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-993. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

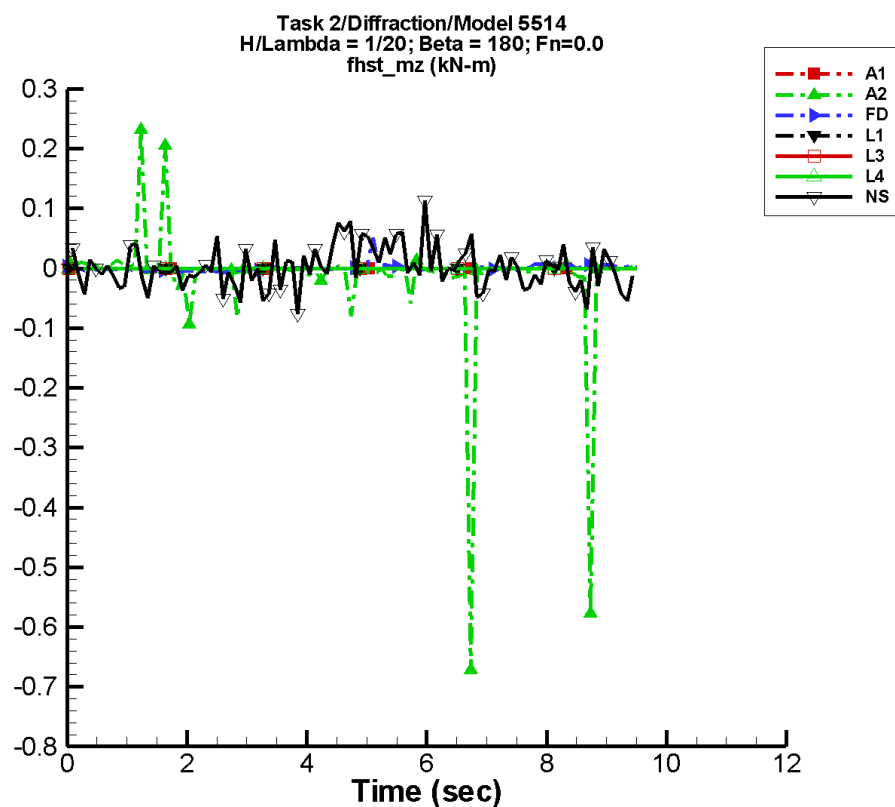
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-3.36E-04	1.22E-03	80	1.82E-03	87
FD	1.05E-03	1.05E-03	118	1.05E-04	-140
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.77E-04	4.50E-03	21	3.03E-03	-131

Table H-994. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.47E-02	4.01E-02	-3.57E-03	1.08E-02
FD	-1.34E-03	9.22E-03	-2.09E-04	2.61E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-6.41E-02	5.28E-02	-1.59E-02	2.09E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-498. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

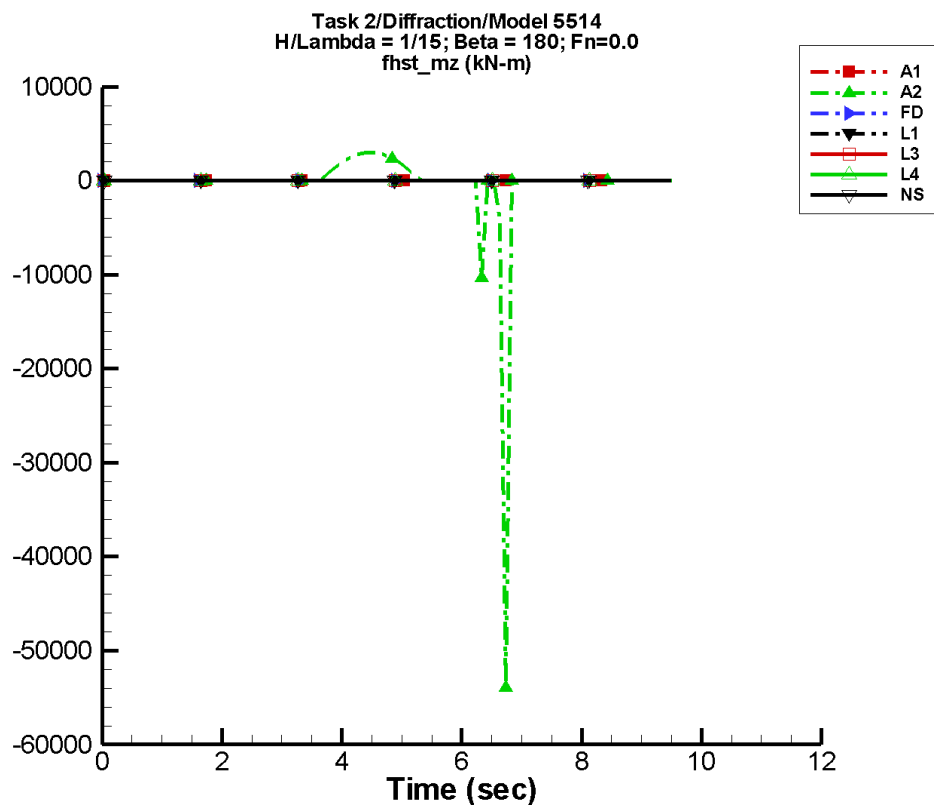
Table H-995. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-459.	978.	-102	1.12E+03	-118
FD	3.38E-04	3.19E-03	-175	2.73E-03	107
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.45E-03	1.85E-02	-105	1.40E-02	38

Table H-996. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.79E+04	65.8	-1.04E+04	888.
FD	-8.27E-03	5.12E-02	-5.02E-03	9.41E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-7.57E-02	0.113	-2.00E-02	4.45E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-499. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

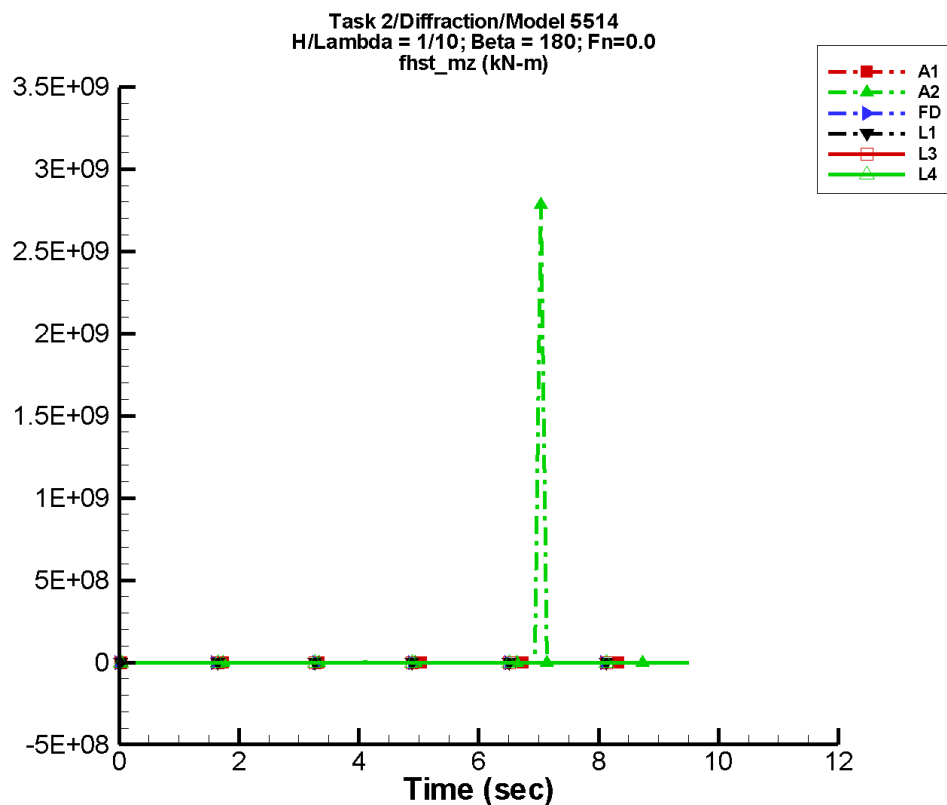
Table H-997. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-364.	1.59E+03	-14	1.84E+03	113
FD	1.01E-03	4.12E-03	-134	4.04E-03	69
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.17E-03	1.34E-02	115	2.39E-03	140

Table H-998. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.39E+04	3.02E+03	-8.40E+03	2.80E+03
FD	-2.67E-02	0.111	-4.81E-03	2.33E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.100	0.102	-1.96E-02	4.19E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-500. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

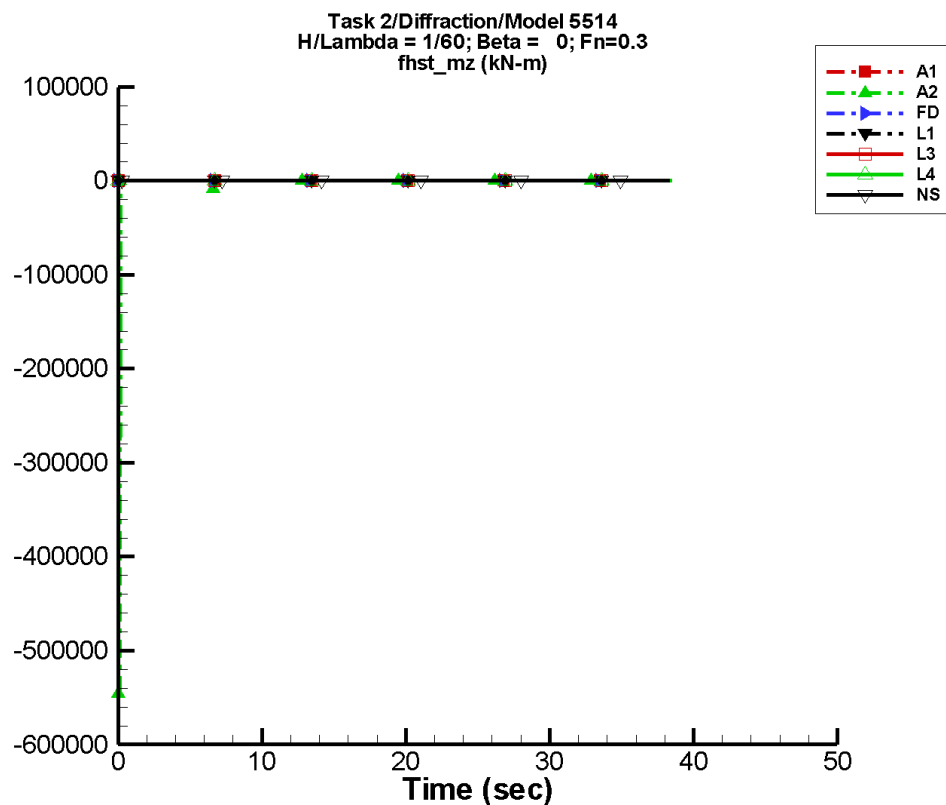
Table H-999. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	3.06E+07	5.86E+07	176	5.36E+07	-89
FD	3.58E-03	3.96E-03	-165	2.32E-03	71
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1000. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.65E+05	2.78E+09	-3.17E+07	3.71E+08
FD	-6.41E-03	0.173	-2.41E-03	2.34E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-501. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1001. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

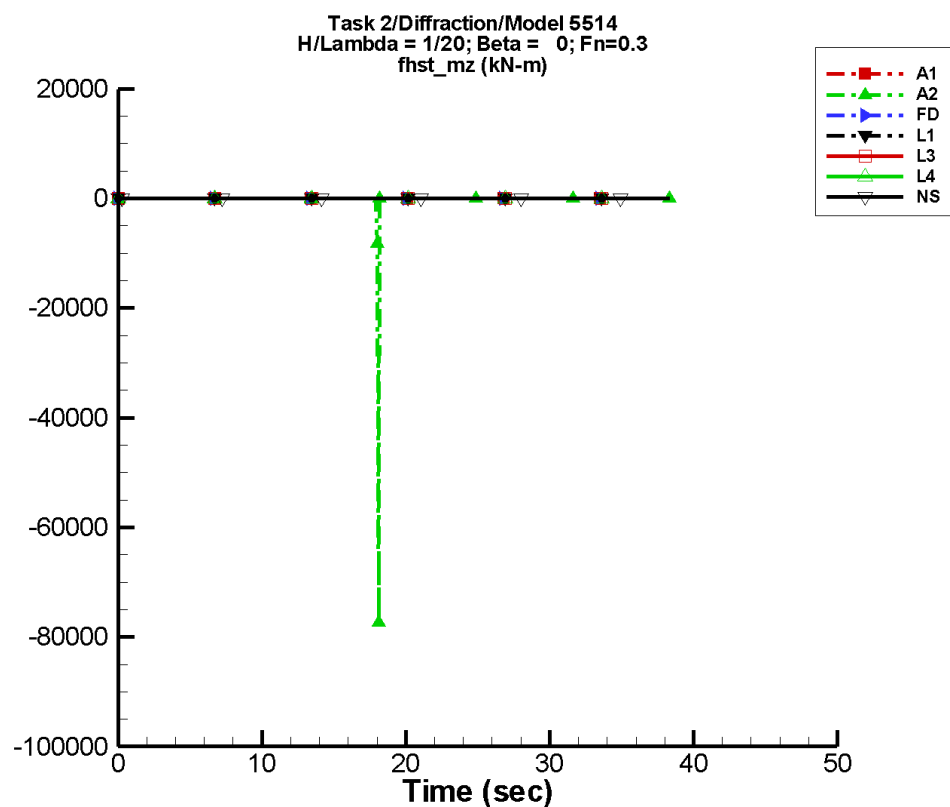
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-20.8	45.1	-152	53.9	151
FD	4.60E-04	2.92E-04	-23	2.32E-04	-21
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.76E-03	3.53E-03	-156	4.42E-04	-48

Table H-1002. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-8.19E+03	0.138	-1.09E+03	93.7
FD	-3.98E-04	1.41E-03	-3.71E-04	1.04E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-6.42E-02	5.97E-02	-1.93E-02	1.86E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-502. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

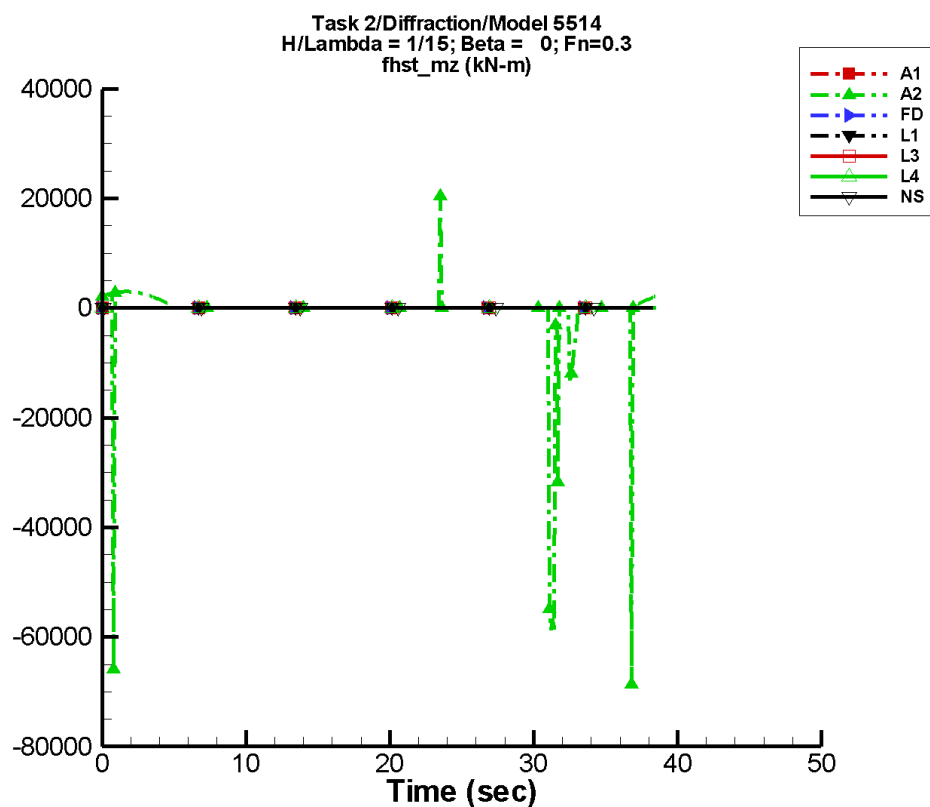
Table H-1003. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-235.	447.	110	401.	-59
FD	2.13E-04	7.57E-04	-48	3.14E-04	40
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-5.88E-03	5.67E-03	62	1.43E-02	95

Table H-1004. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.74E+04	63.0	-1.14E+04	967.
FD	-2.67E-03	2.73E-03	-1.47E-03	1.54E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.42E-02	0.103	-2.94E-02	3.83E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-503. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

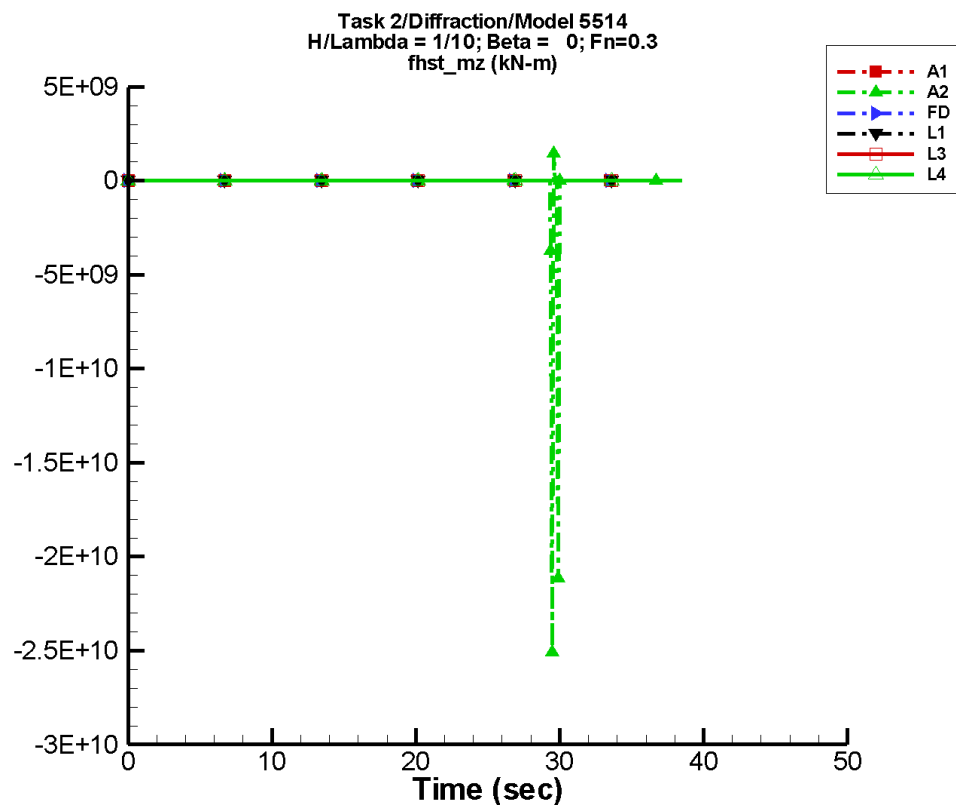
Table H-1005. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-857.	1.82E+03	-24	2.00E+03	41
FD	4.80E-04	9.21E-04	-76	6.60E-04	37
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.77E-03	1.65E-03	62	3.62E-03	91

Table H-1006. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.87E+04	2.04E+04	-3.18E+04	3.79E+03
FD	-2.57E-03	4.89E-03	-1.05E-03	3.01E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.103	0.114	-2.61E-02	2.68E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-504. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

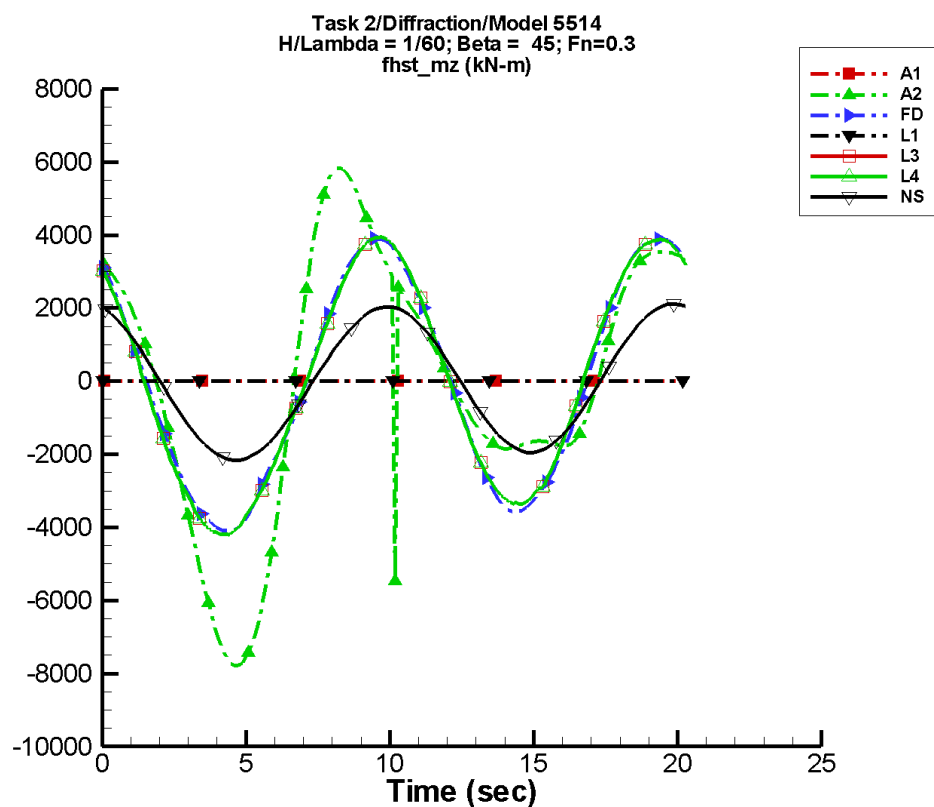
Table H-1007. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-1.32E+08	2.56E+08	-6	2.25E+08	88
FD	6.56E-04	8.41E-04	-99	9.80E-04	6
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1008. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-2.51E+10	1.46E+09	-5.40E+09	2.47E+08
FD	-2.40E-03	5.11E-03	-1.84E-03	3.13E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-505. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1009. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

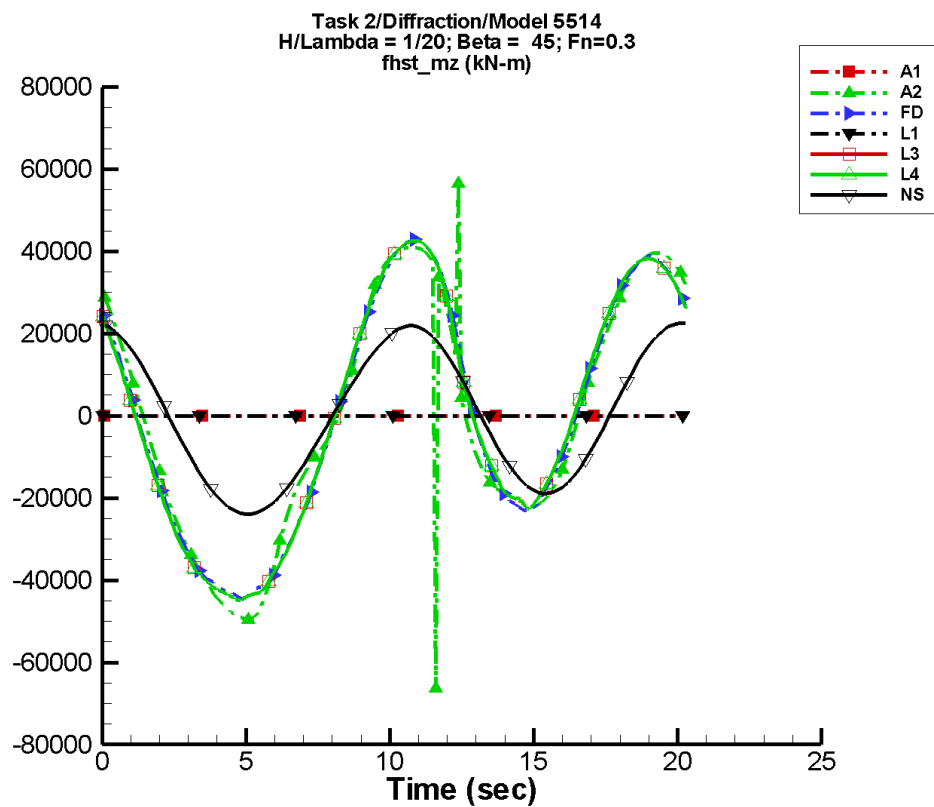
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-51.7	1.23E+03	-168	4.60E+03	100
FD	-13.1	459.	-178	3.81E+03	96
L1	—	—	—	—	—
L3	-17.1	594.	-173	3.75E+03	112
L4	-17.1	594.	-173	3.75E+03	112
NF	—	—	—	—	—
NS	-0.108	154.	-176	2.06E+03	102

Table H-1010. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.79E+03	5.83E+03	-7.69E+03	5.74E+03
FD	-4.09E+03	3.90E+03	-4.07E+03	3.86E+03
L1	—	—	—	—
L3	-4.20E+03	3.94E+03	-4.18E+03	3.93E+03
L4	-4.20E+03	3.94E+03	-4.18E+03	3.93E+03
NF	—	—	—	—
NS	-2.16E+03	2.12E+03	-2.17E+03	2.03E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-506. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

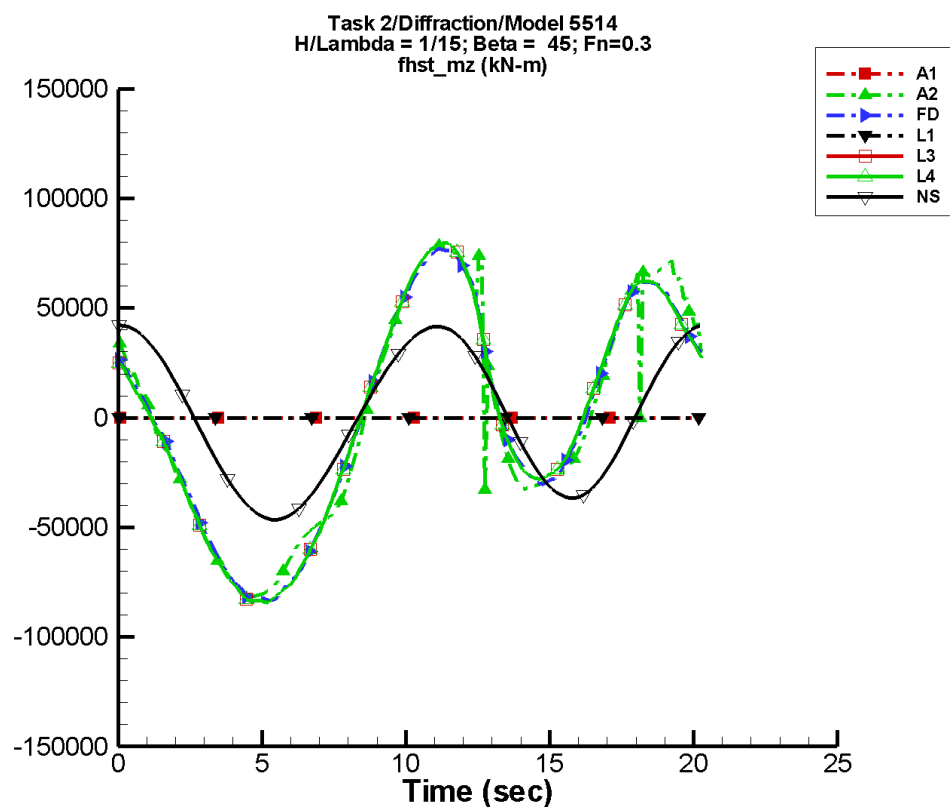
Table H-1011. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-334.	1.65E+04	177	3.43E+04	91
FD	-506.	1.94E+04	180	3.32E+04	83
L1	—	—	—	—	—
L3	-644.	1.97E+04	-174	3.13E+04	99
L4	-644.	1.97E+04	-174	3.13E+04	99
NF	—	—	—	—	—
NS	30.3	4.17E+03	-180	2.13E+04	85

Table H-1012. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-6.64E+04	5.64E+04	-4.97E+04	4.19E+04
FD	-4.46E+04	4.29E+04	-4.37E+04	4.24E+04
L1	—	—	—	—
L3	-4.49E+04	4.26E+04	-4.46E+04	4.25E+04
L4	-4.49E+04	4.26E+04	-4.46E+04	4.25E+04
NF	—	—	—	—
NS	-2.39E+04	2.25E+04	-2.38E+04	2.16E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-507. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

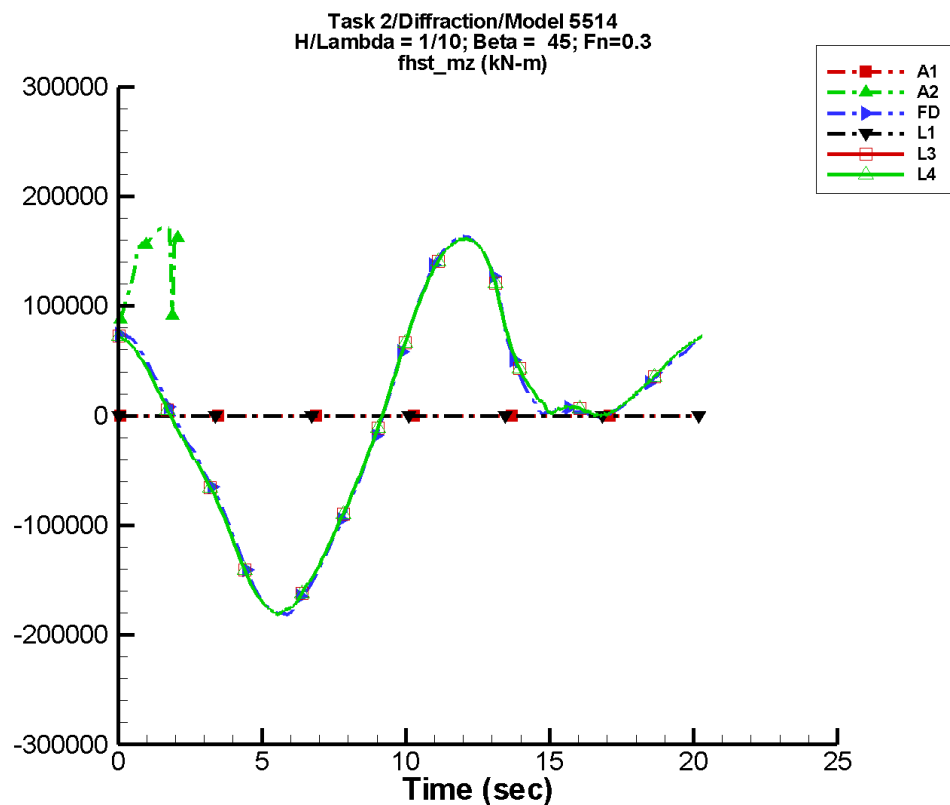
Table H-1013. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-225.	4.02E+04	-178	5.36E+04	89
FD	-694.	4.24E+04	179	5.02E+04	75
L1	—	—	—	—	—
L3	-1.16E+03	4.31E+04	-175	4.76E+04	89
L4	-1.16E+03	4.31E+04	-175	4.76E+04	89
NF	—	—	—	—	—
NS	-41.7	8.50E+03	177	4.08E+04	73

Table H-1014. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.30E+05	7.85E+04	-8.08E+04	7.77E+04
FD	-8.40E+04	7.70E+04	-8.33E+04	7.60E+04
L1	—	—	—	—
L3	-8.44E+04	7.97E+04	-8.39E+04	7.94E+04
L4	-8.44E+04	7.97E+04	-8.39E+04	7.94E+04
NF	—	—	—	—
NS	-4.65E+04	4.21E+04	-4.55E+04	4.23E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-508. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

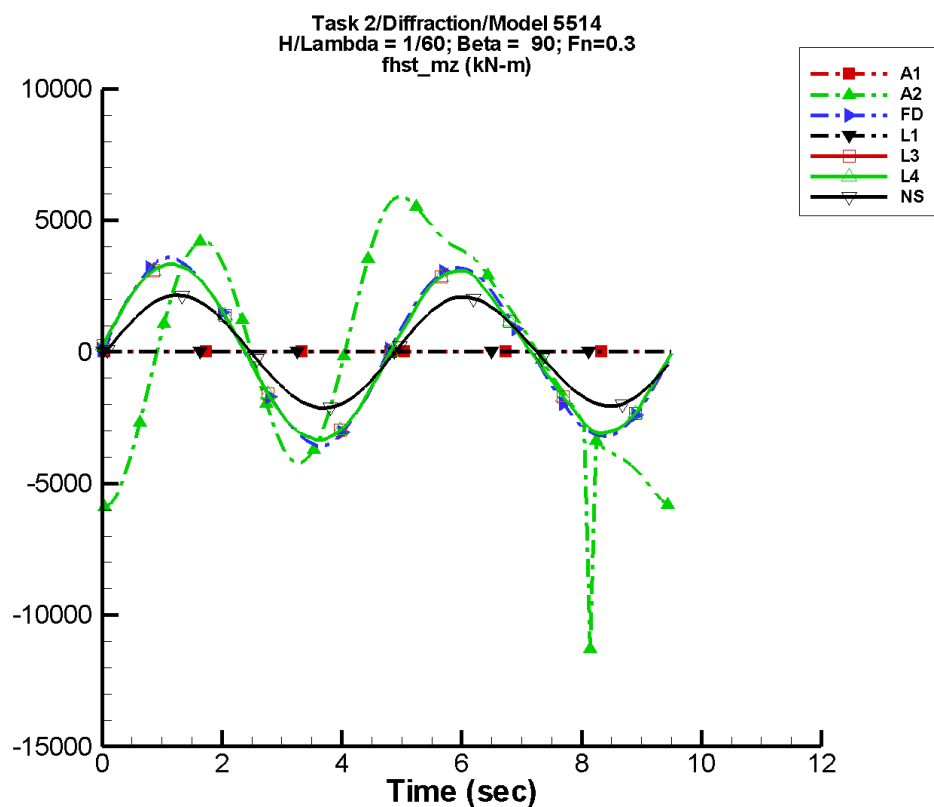
Table H-1015. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-5.38E+05	8.80E+05	110	3.37E+05	-37
FD	-551.	9.29E+04	176	9.31E+04	36
L1	—	—	—	—	—
L3	-1.02E+03	9.40E+04	-177	8.85E+04	51
L4	-1.02E+03	9.40E+04	-177	8.85E+04	51
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1016. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.79E+04	1.72E+05	-1.48E+04	1.65E+05
FD	-1.81E+05	1.63E+05	-1.80E+05	1.62E+05
L1	—	—	—	—
L3	-1.81E+05	1.61E+05	-1.79E+05	1.61E+05
L4	-1.81E+05	1.61E+05	-1.79E+05	1.61E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-509. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1017. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

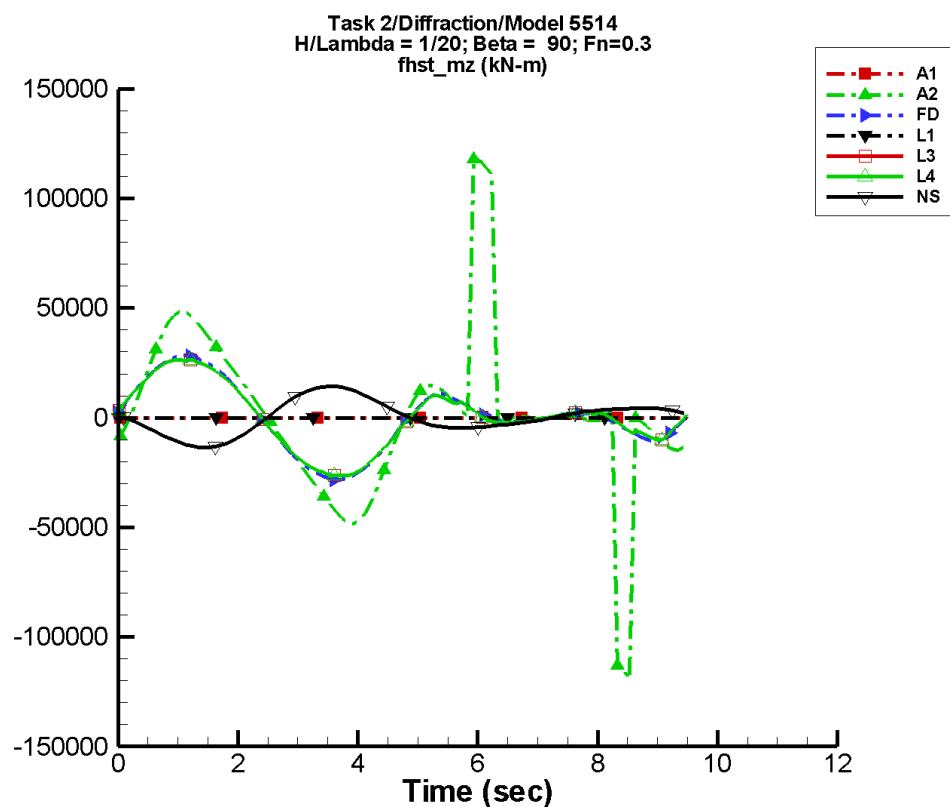
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-88.3	3.31E+03	-93	3.60E+03	-23
FD	-1.13	180.	84	3.34E+03	-11
L1	—	—	—	—	—
L3	7.06	225.	89	3.16E+03	-7
L4	7.06	225.	89	3.16E+03	-7
NF	—	—	—	—	—
NS	7.57	62.0	91	2.11E+03	-8

Table H-1018. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.13E+04	5.90E+03	-5.72E+03	5.57E+03
FD	-3.59E+03	3.59E+03	-3.39E+03	3.39E+03
L1	—	—	—	—
L3	-3.35E+03	3.34E+03	-3.28E+03	3.27E+03
L4	-3.35E+03	3.34E+03	-3.28E+03	3.27E+03
NF	—	—	—	—
NS	-2.14E+03	2.16E+03	-2.05E+03	2.07E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-510. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

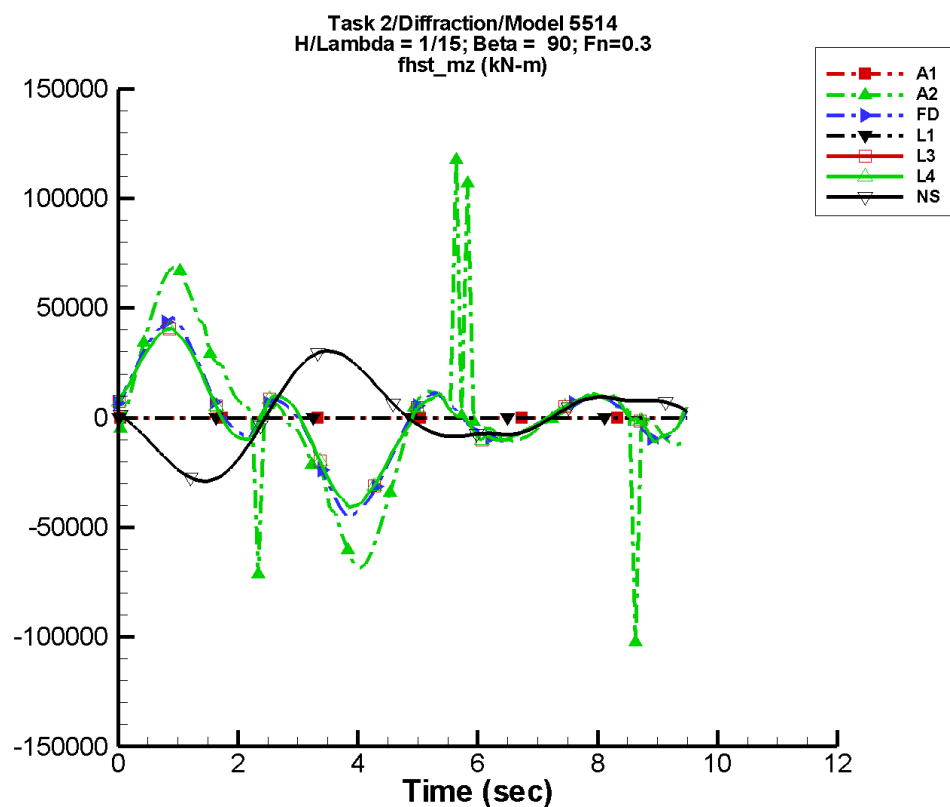
Table H-1019. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	4.53E+03	1.01E+04	92	4.13E+04	-6
FD	-137.	1.01E+04	85	1.76E+04	-12
L1	—	—	—	—	—
L3	69.0	9.95E+03	85	1.55E+04	-4
L4	69.0	9.95E+03	85	1.55E+04	-4
NF	—	—	—	—	—
NS	58.7	3.13E+03	-98	9.28E+03	169

Table H-1020. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.19E+05	5.78E+05	-4.43E+04	8.55E+04
FD	-2.84E+04	2.83E+04	-2.70E+04	2.71E+04
L1	—	—	—	—
L3	-2.65E+04	2.65E+04	-2.62E+04	2.62E+04
L4	-2.65E+04	2.65E+04	-2.62E+04	2.62E+04
NF	—	—	—	—
NS	-1.36E+04	1.43E+04	-1.30E+04	1.36E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-511. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

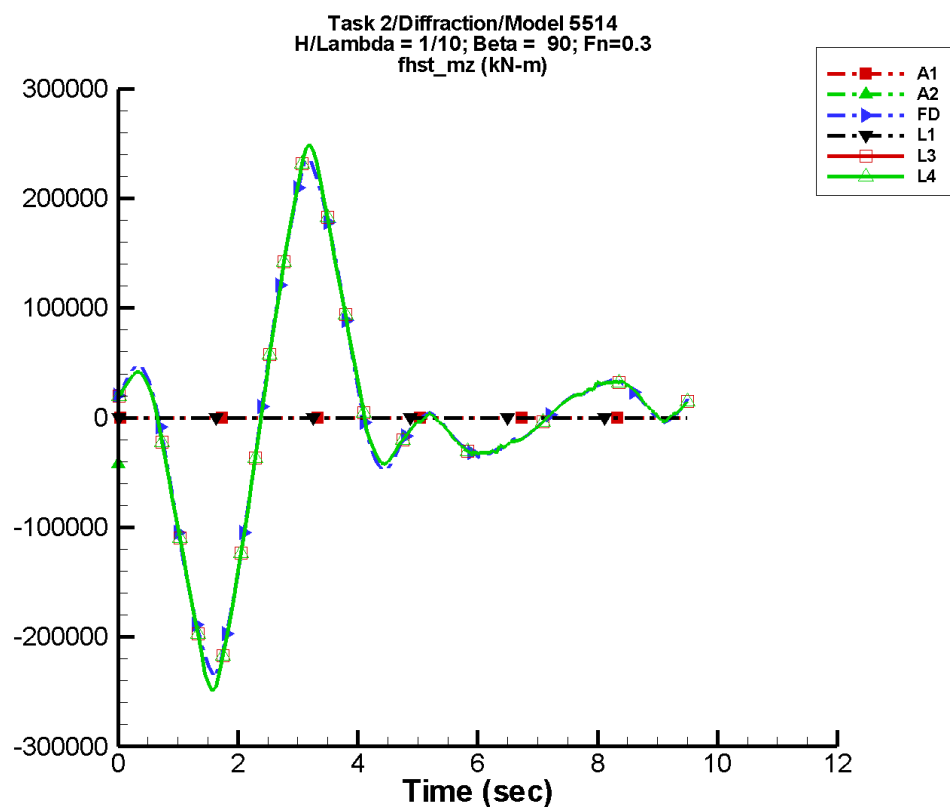
Table H-1021. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	1.10E+03	1.85E+04	86	3.12E+04	-12
FD	10.3	1.73E+04	84	1.44E+04	-11
L1	—	—	—	—	—
L3	372.	1.59E+04	86	1.18E+04	0
L4	372.	1.59E+04	86	1.18E+04	0
NF	—	—	—	—	—
NS	236.	6.67E+03	-99	1.96E+04	170

Table H-1022. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.02E+05	1.17E+05	-5.93E+04	5.99E+04
FD	-4.55E+04	4.56E+04	-4.09E+04	3.95E+04
L1	—	—	—	—
L3	-4.10E+04	4.09E+04	-3.87E+04	3.87E+04
L4	-4.10E+04	4.09E+04	-3.87E+04	3.87E+04
NF	—	—	—	—
NS	-2.91E+04	3.04E+04	-2.83E+04	2.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-512. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

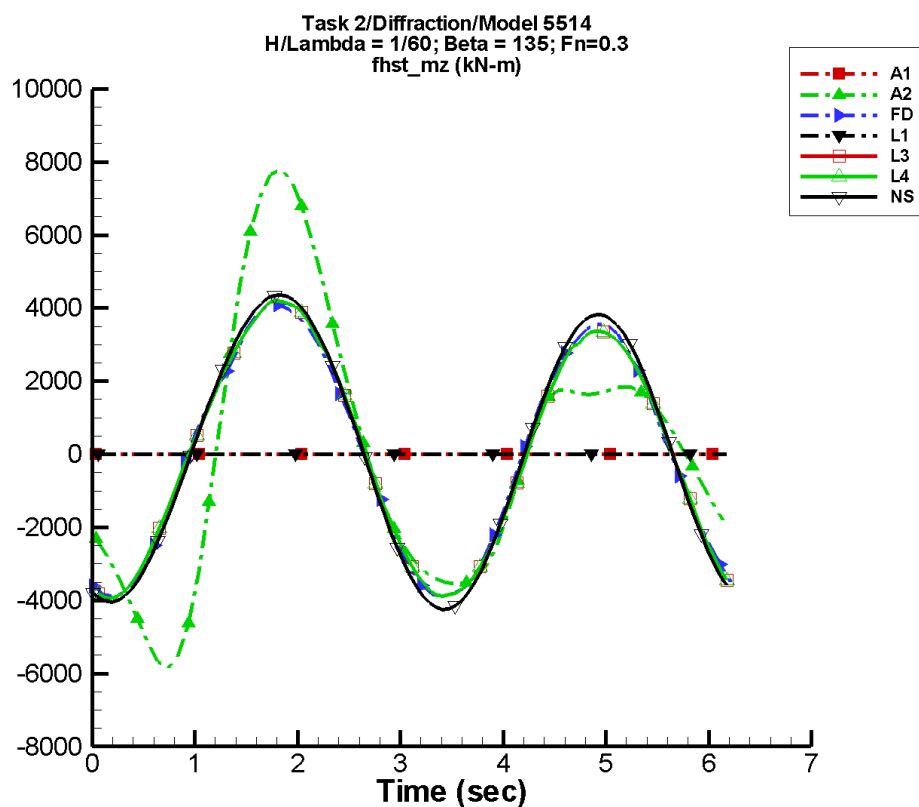
Table H-1023. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.49E+04	1.03E+06	-96	2.81E+05	-3
FD	3.79E+03	2.62E+04	-93	1.03E+05	165
L1	—	—	—	—	—
L3	3.00E+03	2.80E+04	-101	9.47E+04	173
L4	3.00E+03	2.80E+04	-101	9.47E+04	173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1024. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-7.28E+04	-4.21E+04	-7.28E+04	-4.21E+04
FD	-2.37E+05	2.38E+05	-2.02E+05	2.02E+05
L1	—	—	—	—
L3	-2.49E+05	2.49E+05	-2.29E+05	2.29E+05
L4	-2.49E+05	2.49E+05	-2.29E+05	2.29E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-513. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1025. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

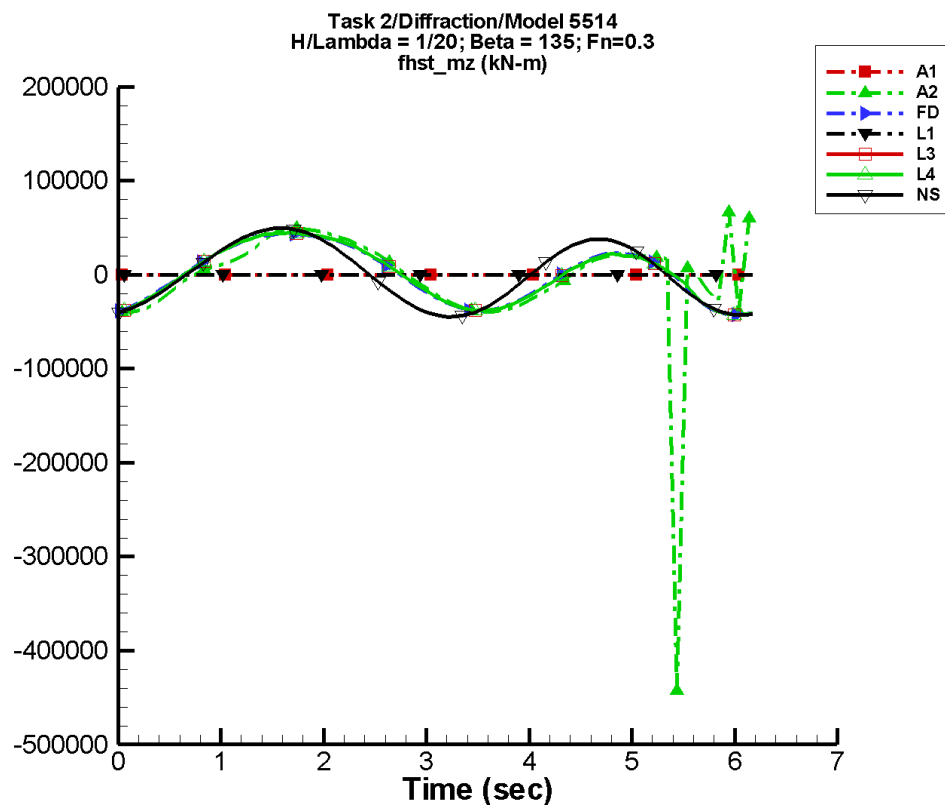
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-77.6	1.06E+03	-55	4.48E+03	-153
FD	-1.37	469.	-30	3.80E+03	-162
L1	—	—	—	—	—
L3	10.6	606.	-18	3.80E+03	-139
L4	10.6	606.	-18	3.80E+03	-139
NF	—	—	—	—	—
NS	14.2	493.	-3	4.08E+03	-120

Table H-1026. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-5.83E+03	7.78E+03	-4.79E+03	6.71E+03
FD	-3.90E+03	4.09E+03	-3.77E+03	3.69E+03
L1	—	—	—	—
L3	-3.94E+03	4.19E+03	-3.89E+03	4.04E+03
L4	-3.94E+03	4.19E+03	-3.89E+03	4.04E+03
NF	—	—	—	—
NS	-4.25E+03	4.36E+03	-4.08E+03	4.20E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-514. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

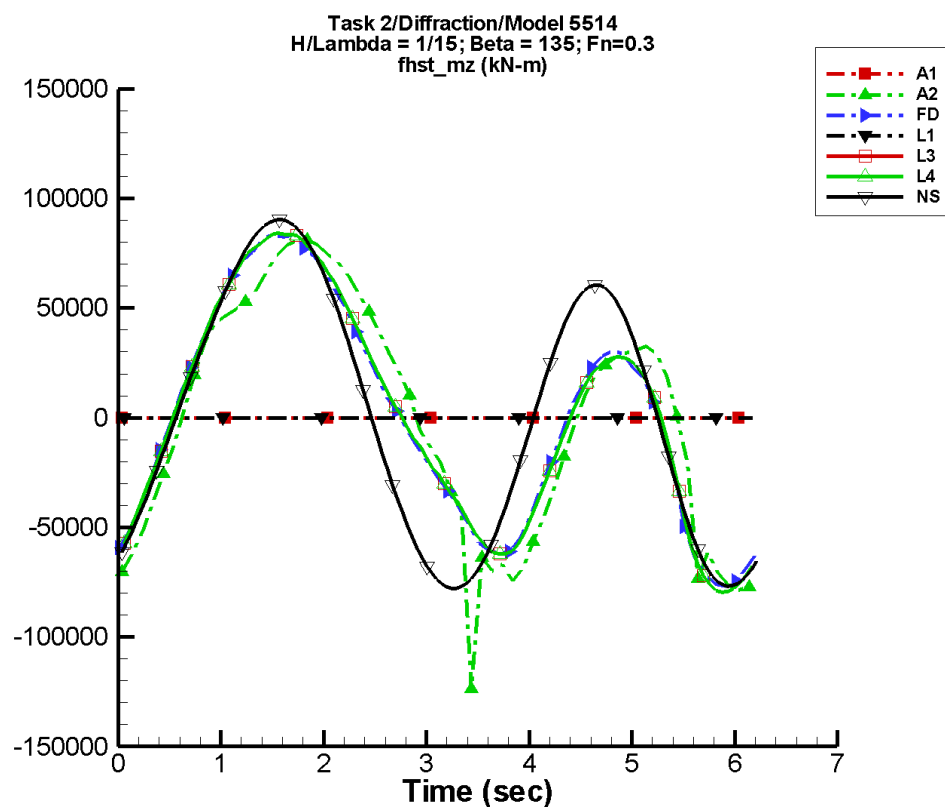
Table H-1027. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-4.71E+03	2.64E+04	-25	2.51E+04	-121
FD	130.	1.94E+04	-28	3.21E+04	-150
L1	—	—	—	—	—
L3	491.	2.01E+04	-17	3.31E+04	-125
L4	491.	2.01E+04	-17	3.31E+04	-125
NF	—	—	—	—	—
NS	235.	9.89E+03	6	4.21E+04	-91

Table H-1028. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-4.43E+05	6.62E+04	-5.01E+04	4.45E+04
FD	-4.30E+04	4.46E+04	-3.77E+04	4.20E+04
L1	—	—	—	—
L3	-4.26E+04	4.49E+04	-4.13E+04	4.37E+04
L4	-4.26E+04	4.49E+04	-4.13E+04	4.37E+04
NF	—	—	—	—
NS	-4.48E+04	4.97E+04	-4.30E+04	4.80E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1 and NFA.

Figure H-515. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

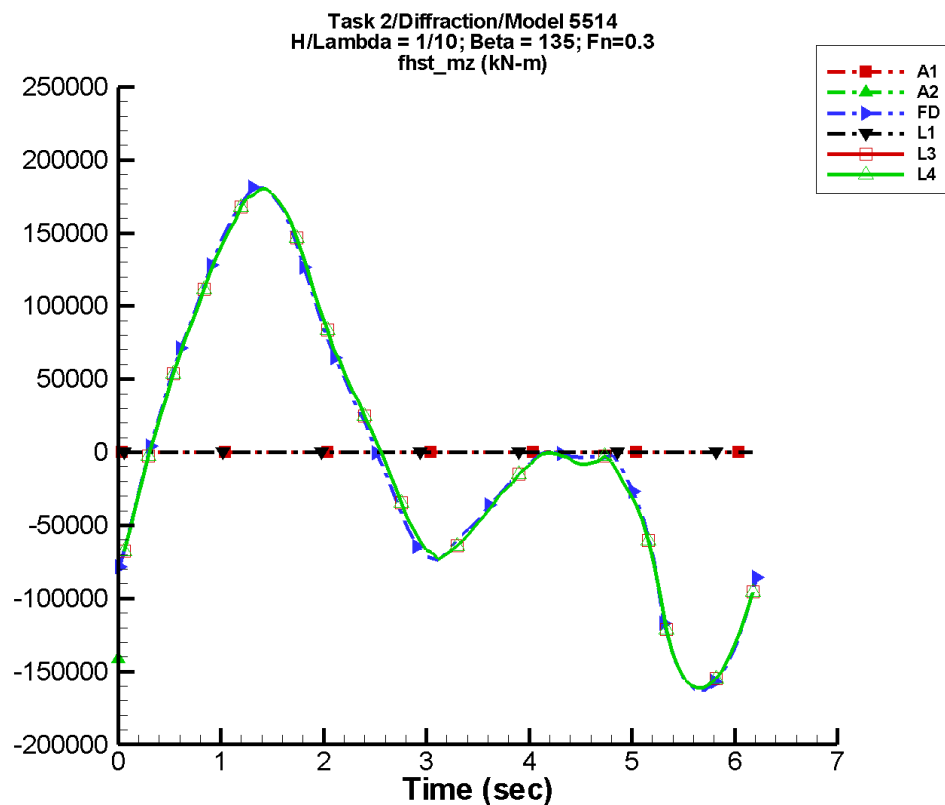
Table H-1029. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-181.	4.35E+04	-16	5.47E+04	-127
FD	129.	4.31E+04	-28	4.81E+04	-142
L1	—	—	—	—	—
L3	932.	4.40E+04	-17	5.07E+04	-117
L4	932.	4.40E+04	-17	5.07E+04	-117
NF	—	—	—	—	—
NS	569.	2.53E+04	7	7.04E+04	-87

Table H-1030. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.24E+05	8.11E+04	-7.07E+04	7.49E+04
FD	-7.69E+04	8.40E+04	-6.78E+04	7.88E+04
L1	—	—	—	—
L3	-7.97E+04	8.42E+04	-7.66E+04	8.23E+04
L4	-7.97E+04	8.42E+04	-7.66E+04	8.23E+04
NF	—	—	—	—
NS	-7.78E+04	9.04E+04	-7.61E+04	8.89E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, NFA and NSHIPMO.

Figure H-516. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

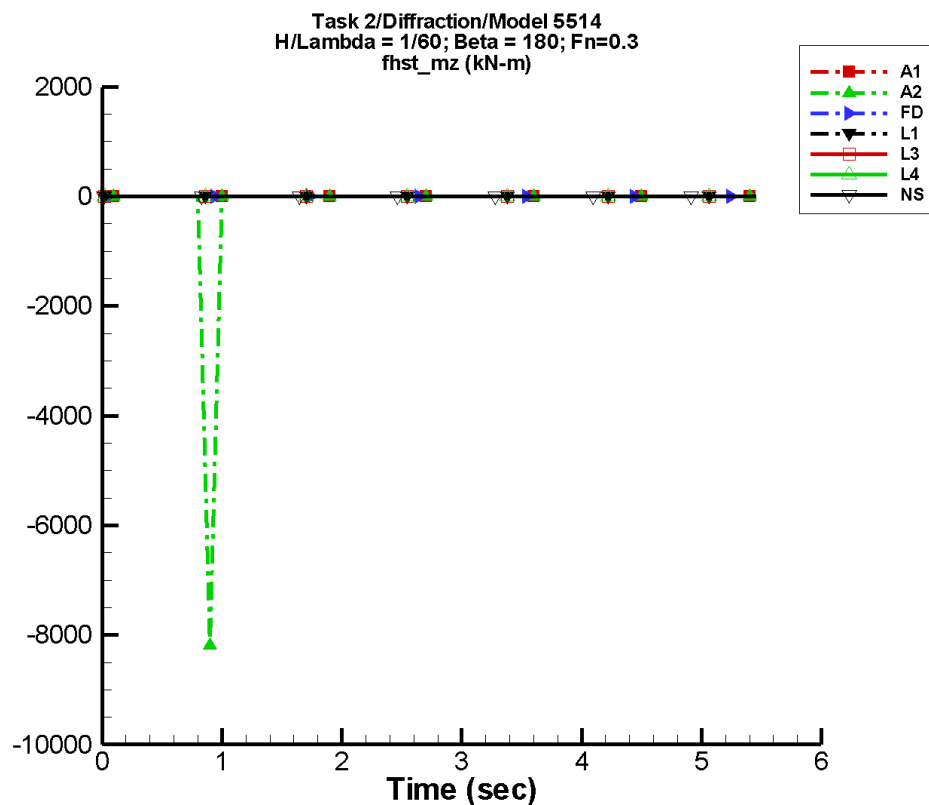
Table H-1031. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-6.19E+04	1.08E+05	-106	9.60E+04	-87
FD	289.	9.29E+04	-27	9.04E+04	-101
L1	—	—	—	—	—
L3	751.	9.39E+04	-16	9.02E+04	-78
L4	751.	9.39E+04	-16	9.02E+04	-78
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1032. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.42E+05	-1.13E+05	-1.42E+05	-1.13E+05
FD	-1.63E+05	1.81E+05	-1.46E+05	1.65E+05
L1	—	—	—	—
L3	-1.61E+05	1.80E+05	-1.56E+05	1.74E+05
L4	-1.61E+05	1.80E+05	-1.56E+05	1.74E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-517. Time history of  $M_z^{hst}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1033. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

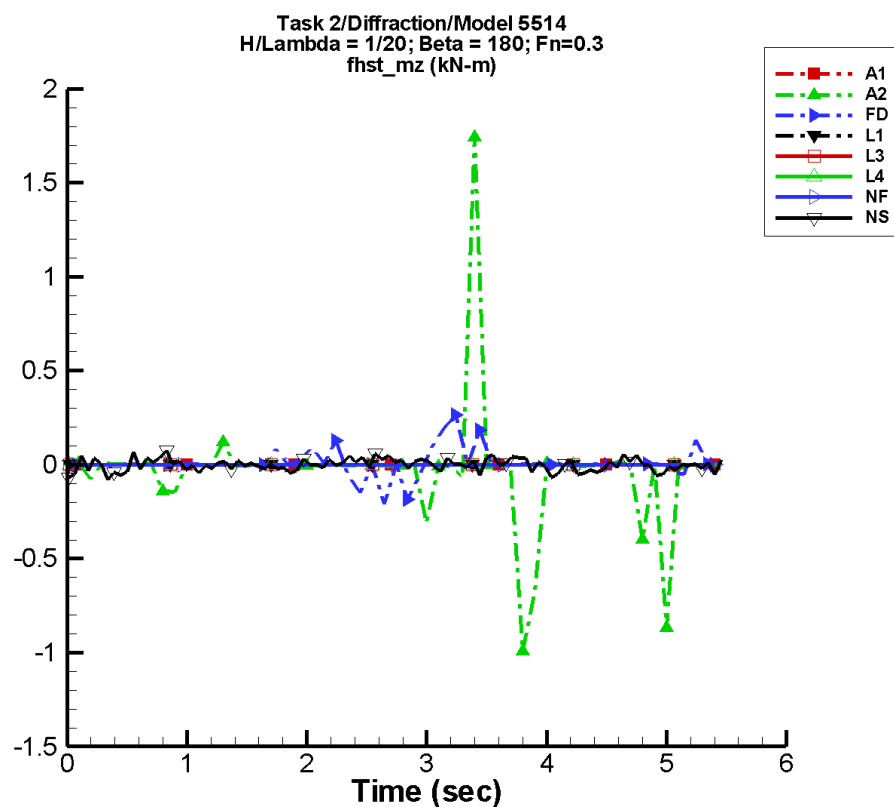
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-99.8	212.	-152	241.	150
FD	-2.08E-02	3.70E-02	-53	3.91E-02	-33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.25E-04	4.06E-03	-81	4.02E-03	111

Table H-1034. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-8.19E+03	6.86E-03	-1.09E+03	93.7
FD	-0.167	0.100	-0.115	2.71E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.32E-02	7.32E-02	-1.73E-02	3.05E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-518. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

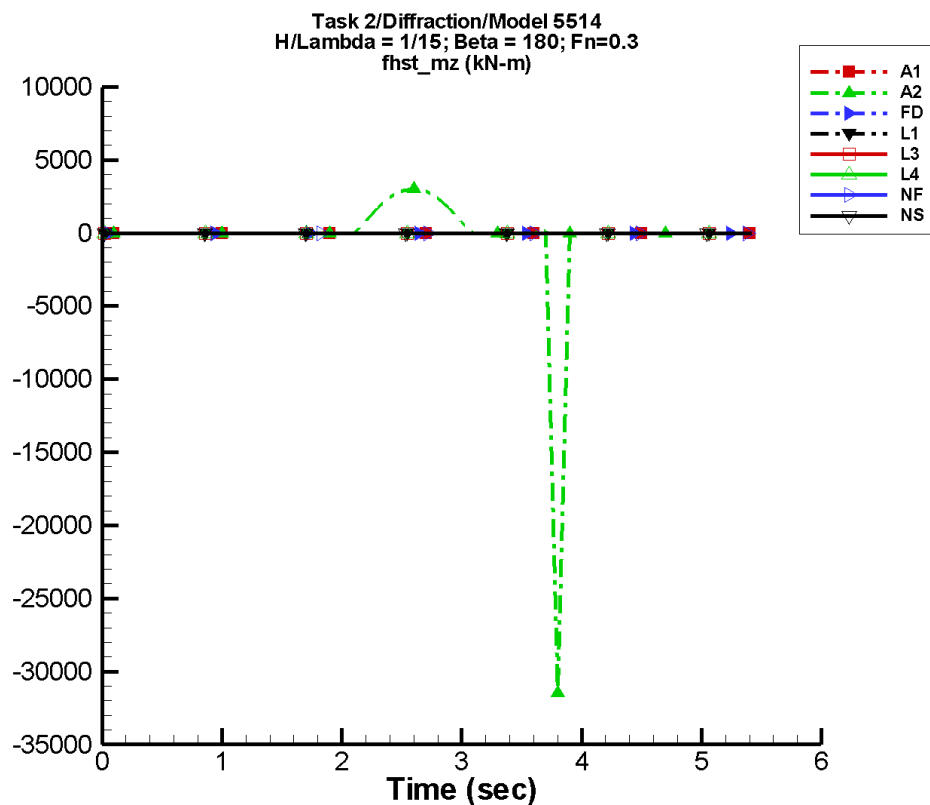
Table H-1035. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-2.91E-02	6.70E-02	-41	6.81E-02	39
FD	-2.72E-03	2.43E-02	-118	4.83E-02	144
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.37E-04	1.08E-02	-69	7.95E-03	36

Table H-1036. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-0.992	1.74	-0.154	0.129
FD	-0.594	0.358	-0.224	0.135
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-7.92E-02	9.12E-02	-4.11E-02	2.63E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-519. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

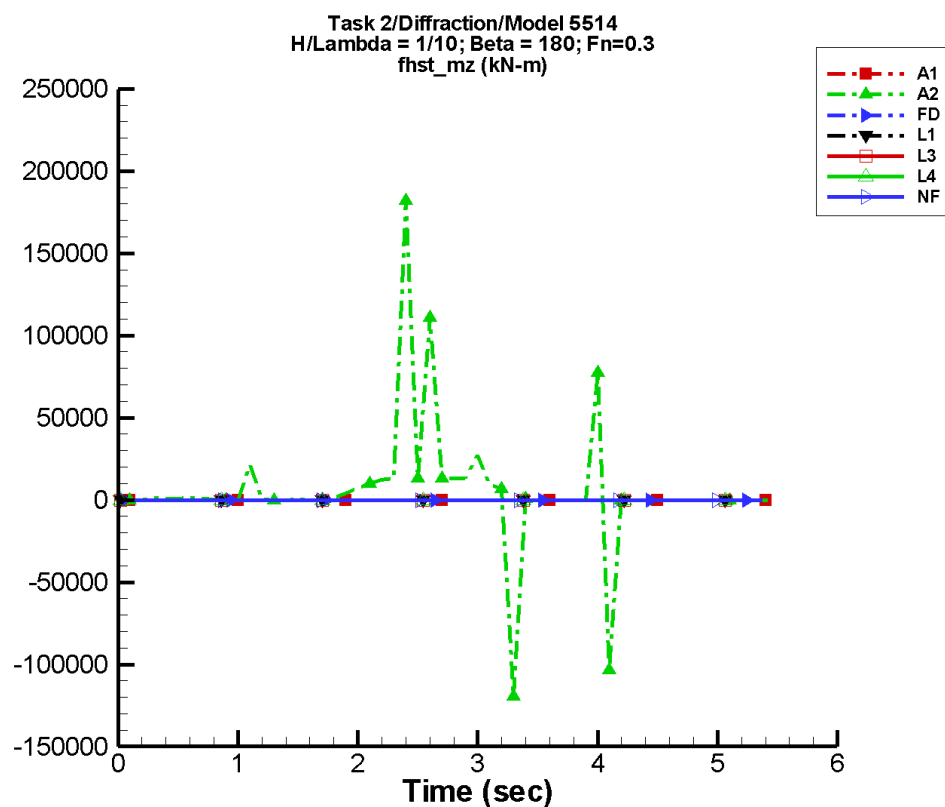
Table H-1037. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	-235.	1.25E+03	-7	1.65E+03	135
FD	-8.30E-03	8.04E-02	-124	0.155	140
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.27E-04	1.23E-02	94	6.78E-03	159

Table H-1038. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-3.14E+04	3.02E+03	-4.22E+03	2.23E+03
FD	-0.848	1.02	-0.381	0.231
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.30E-02	0.105	-3.09E-02	2.67E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from AEGIR-1, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-520. Time history of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

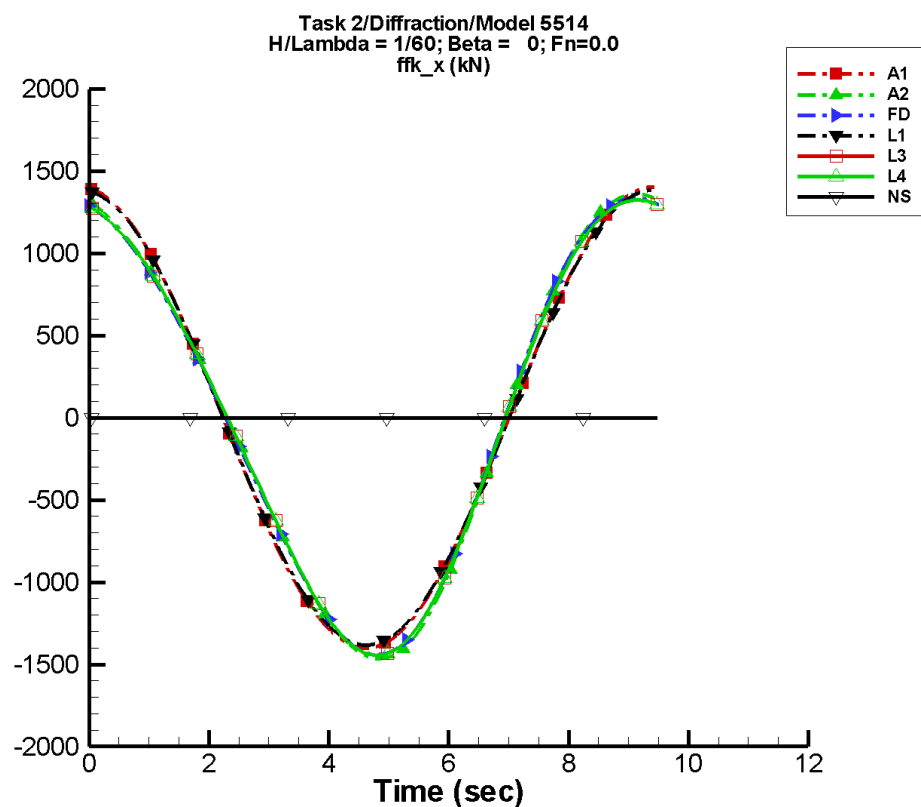
Table H-1039. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	—	—	—	—	—
A2	6.08E+03	1.41E+04	-46	1.41E+04	141
FD	-2.76E-02	0.136	-127	0.202	105
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1040. Minimum and maximum of  $M_z^{\text{hst}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	—	—	—	—
A2	-1.19E+05	1.82E+05	-1.26E+04	4.89E+04
FD	-2.38	2.31	-0.431	0.544
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-521. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1041. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

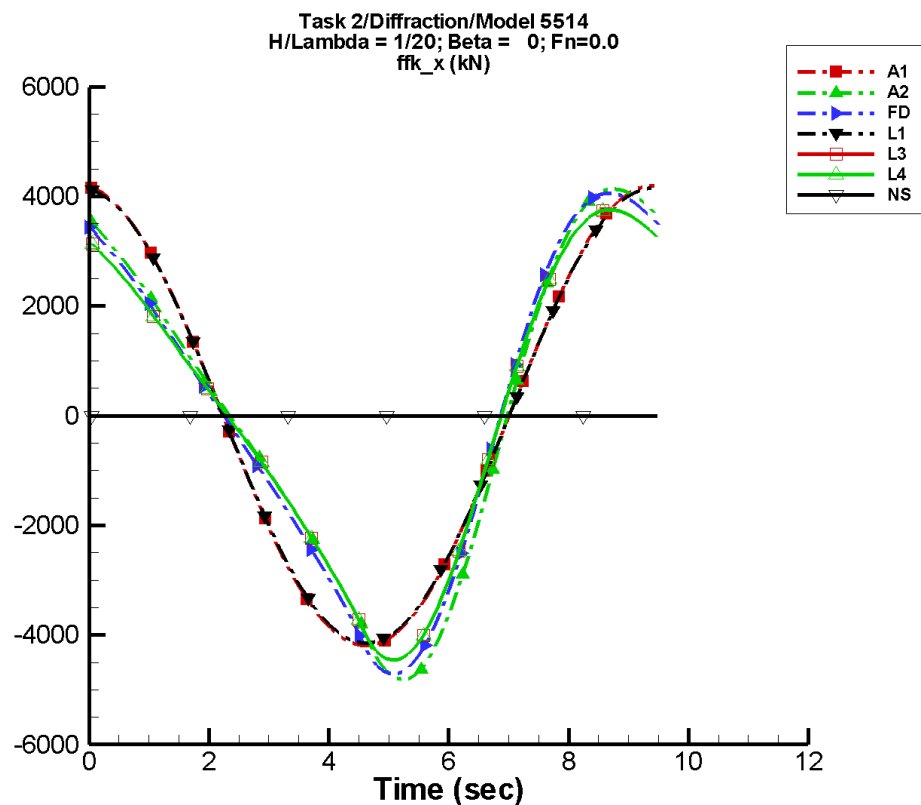
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.28	1.40E+03	91	1.80	33
A2	1.97	1.40E+03	91	122.	-152
FD	1.02	1.37E+03	91	119.	-152
L1	-0.231	1.38E+03	92	0.370	-30
L3	0.470	1.37E+03	92	114.	-145
L4	0.470	1.37E+03	92	114.	-145
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1042. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.40E+03	1.40E+03	-1.39E+03	1.39E+03
A2	-1.47E+03	1.36E+03	-1.45E+03	1.34E+03
FD	-1.44E+03	1.33E+03	-1.42E+03	1.32E+03
L1	-1.38E+03	1.38E+03	-1.38E+03	1.38E+03
L3	-1.45E+03	1.32E+03	-1.44E+03	1.32E+03
L4	-1.45E+03	1.32E+03	-1.44E+03	1.32E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-522. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

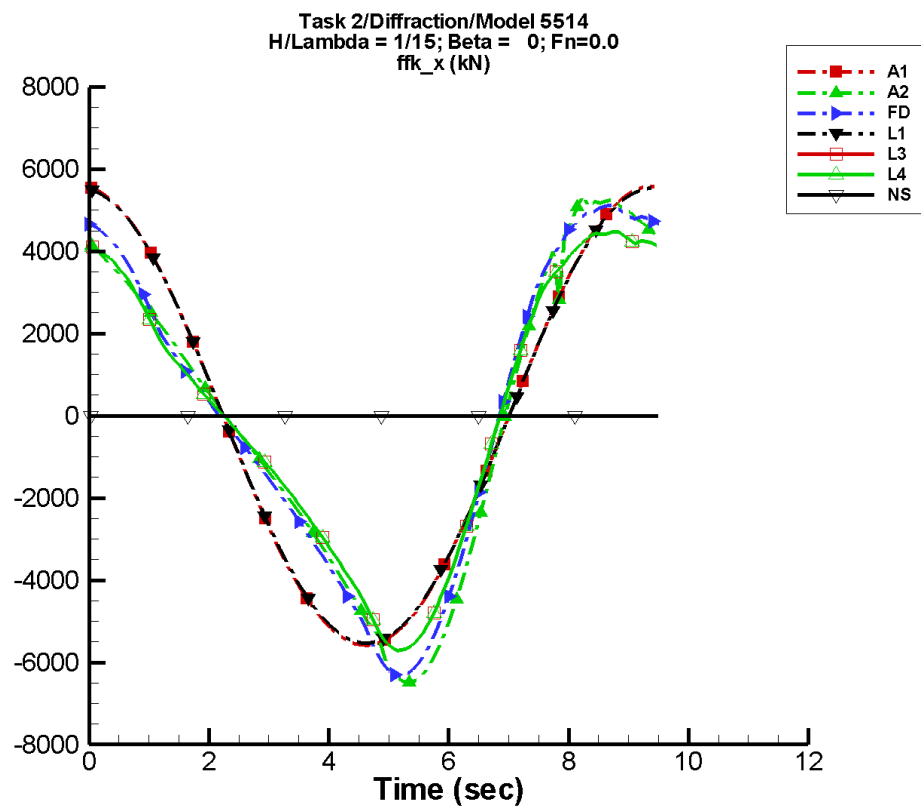
Table H-1043. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.82	4.19E+03	91	5.37	33
A2	7.33	4.04E+03	88	1.00E+03	-170
FD	15.6	3.98E+03	92	930.	-165
L1	-0.692	4.15E+03	92	1.11	-30
L3	1.20	3.72E+03	93	874.	-158
L4	1.20	3.72E+03	93	874.	-158
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1044. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.19E+03	4.19E+03	-4.15E+03	4.15E+03
A2	-4.82E+03	4.14E+03	-4.71E+03	4.08E+03
FD	-4.71E+03	4.06E+03	-4.61E+03	4.00E+03
L1	-4.15E+03	4.15E+03	-4.13E+03	4.13E+03
L3	-4.46E+03	3.76E+03	-4.42E+03	3.74E+03
L4	-4.46E+03	3.76E+03	-4.42E+03	3.74E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-523. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

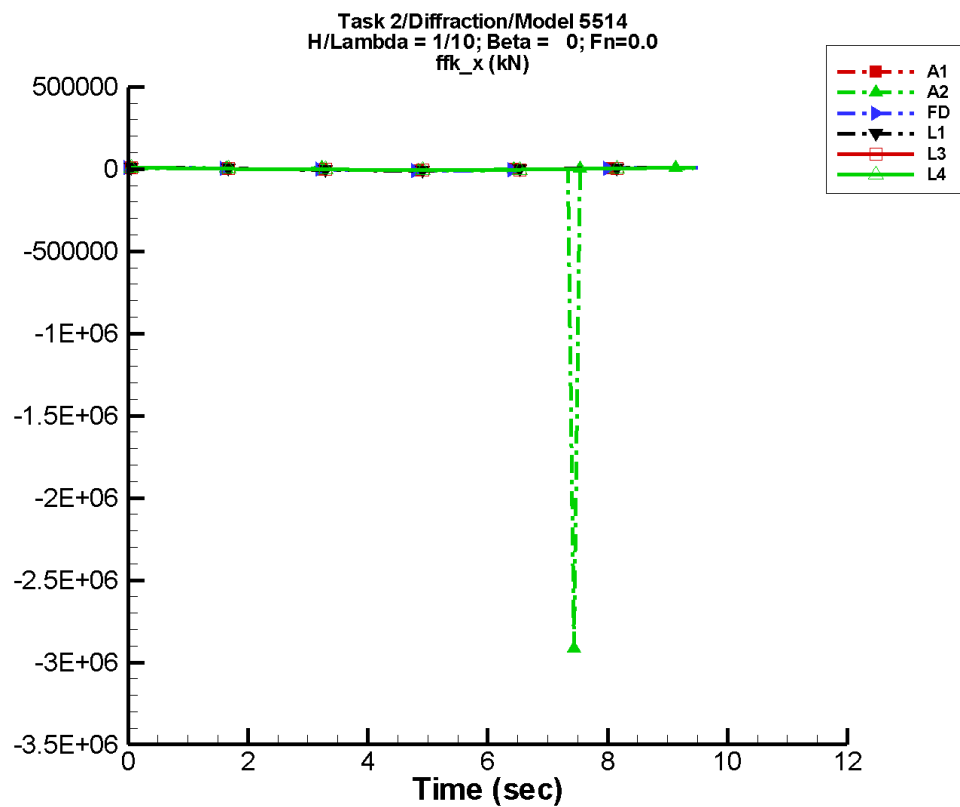
Table H-1045. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.09	5.58E+03	91	7.15	33
A2	-59.6	5.13E+03	89	1.48E+03	-168
FD	32.9	5.19E+03	92	1.27E+03	-170
L1	-0.923	5.53E+03	92	1.48	-30
L3	15.3	4.62E+03	93	1.12E+03	-164
L4	15.3	4.62E+03	93	1.12E+03	-164
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1046. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.58E+03	5.58E+03	-5.52E+03	5.52E+03
A2	-6.49E+03	5.35E+03	-6.29E+03	5.18E+03
FD	-6.33E+03	5.12E+03	-6.15E+03	5.00E+03
L1	-5.53E+03	5.53E+03	-5.51E+03	5.51E+03
L3	-5.71E+03	4.48E+03	-5.65E+03	4.44E+03
L4	-5.71E+03	4.48E+03	-5.65E+03	4.44E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-524. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

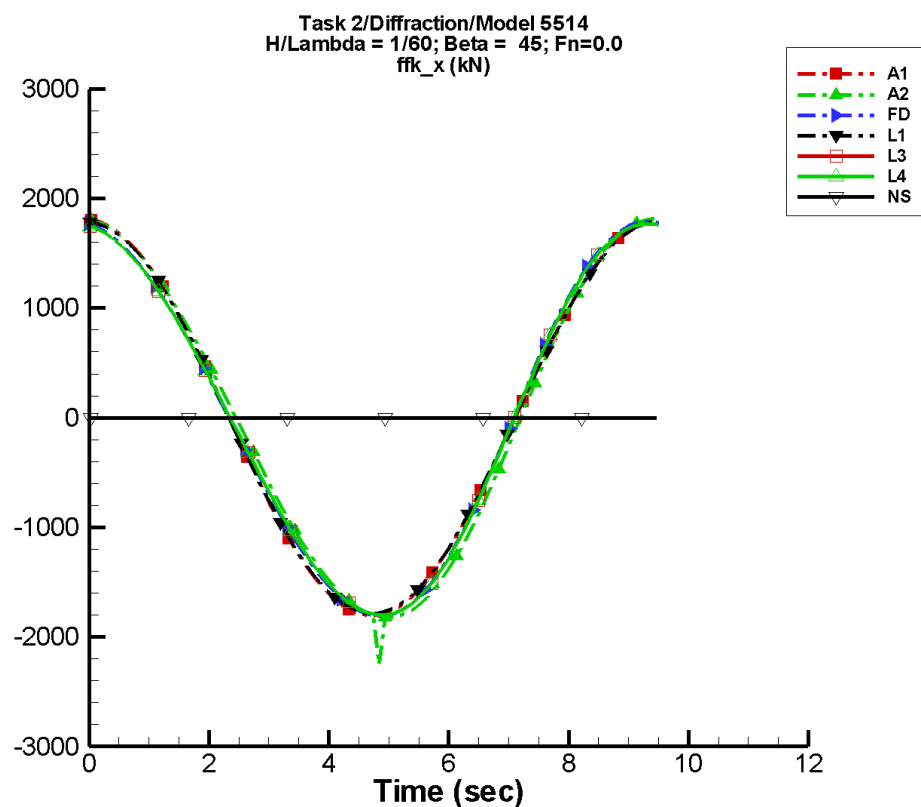
Table H-1047. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-7.64	8.39E+03	91	10.7	33
A2	-3.32E+04	5.91E+04	-14	5.50E+04	62
FD	38.4	8.09E+03	83	1.47E+03	140
L1	-1.38	8.29E+03	92	2.22	-30
L3	5.03	6.64E+03	83	1.10E+03	134
L4	5.03	6.64E+03	83	1.10E+03	134
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1048. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.39E+03	8.38E+03	-8.29E+03	8.29E+03
A2	-2.91E+06	1.18E+04	-3.87E+05	3.93E+04
FD	-8.74E+03	8.95E+03	-8.52E+03	8.68E+03
L1	-8.30E+03	8.29E+03	-8.26E+03	8.26E+03
L3	-7.02E+03	7.53E+03	-6.98E+03	7.33E+03
L4	-7.02E+03	7.53E+03	-6.98E+03	7.33E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-525. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1049. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

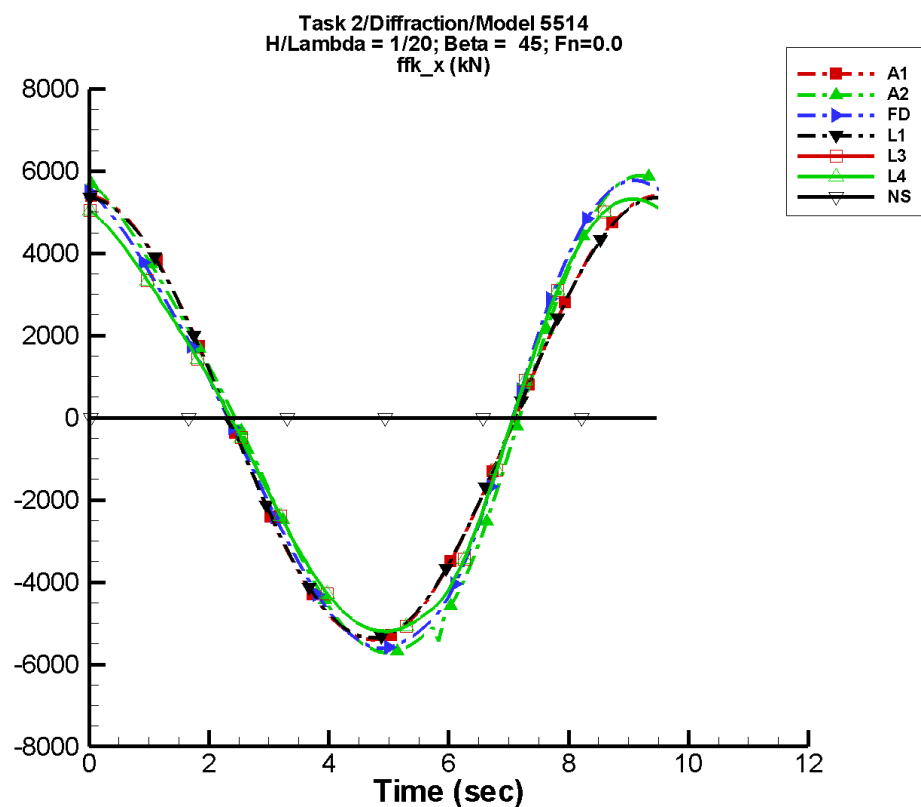
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.74	1.80E+03	87	2.39	30
A2	-3.63	1.82E+03	83	90.4	178
FD	0.437	1.79E+03	87	89.2	-178
L1	-1.05	1.79E+03	88	1.38	43
L3	-0.304	1.78E+03	88	95.4	-173
L4	-0.304	1.78E+03	88	95.4	-173
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1050. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.79E+03	1.80E+03
A2	-2.25E+03	1.81E+03	-1.86E+03	1.79E+03
FD	-1.81E+03	1.79E+03	-1.79E+03	1.77E+03
L1	-1.79E+03	1.79E+03	-1.78E+03	1.78E+03
L3	-1.80E+03	1.77E+03	-1.79E+03	1.76E+03
L4	-1.80E+03	1.77E+03	-1.79E+03	1.76E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-526. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

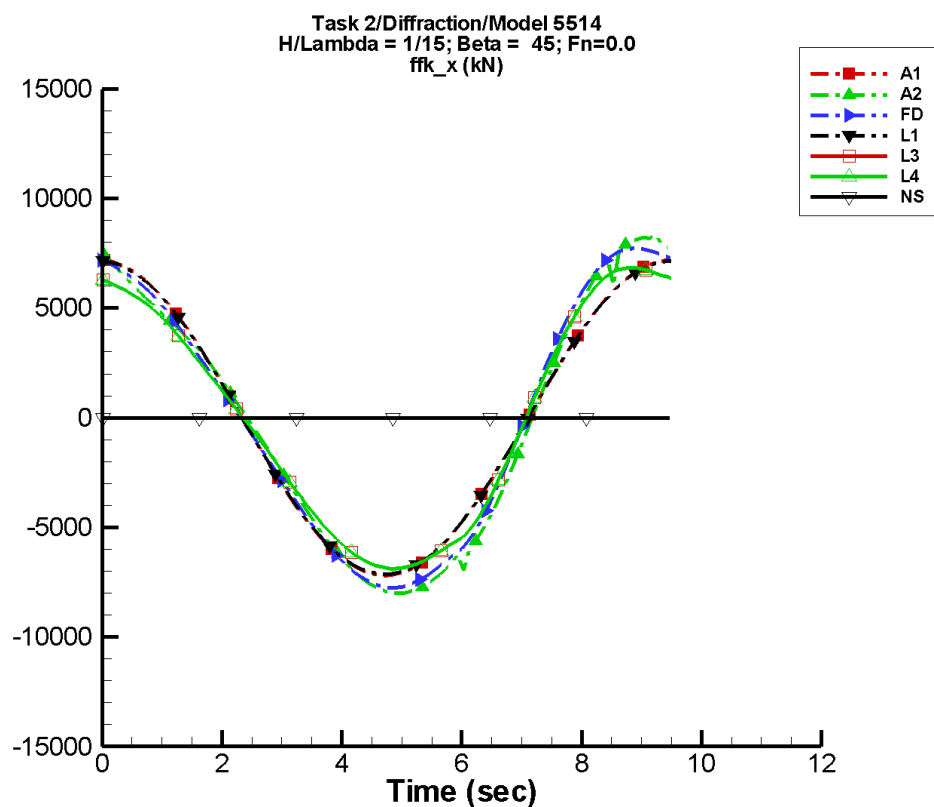
Table H-1051. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.21	5.40E+03	87	7.16	30
A2	-13.1	5.72E+03	85	654.	170
FD	-3.67	5.64E+03	88	620.	178
L1	-3.15	5.36E+03	88	4.13	43
L3	-2.19	5.22E+03	89	636.	-178
L4	-2.19	5.22E+03	89	636.	-178
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1052. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.40E+03	-5.34E+03	5.37E+03
A2	-5.71E+03	5.88E+03	-5.64E+03	5.81E+03
FD	-5.60E+03	5.77E+03	-5.54E+03	5.70E+03
L1	-5.36E+03	5.36E+03	-5.34E+03	5.35E+03
L3	-5.20E+03	5.32E+03	-5.18E+03	5.29E+03
L4	-5.20E+03	5.32E+03	-5.18E+03	5.29E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-527. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

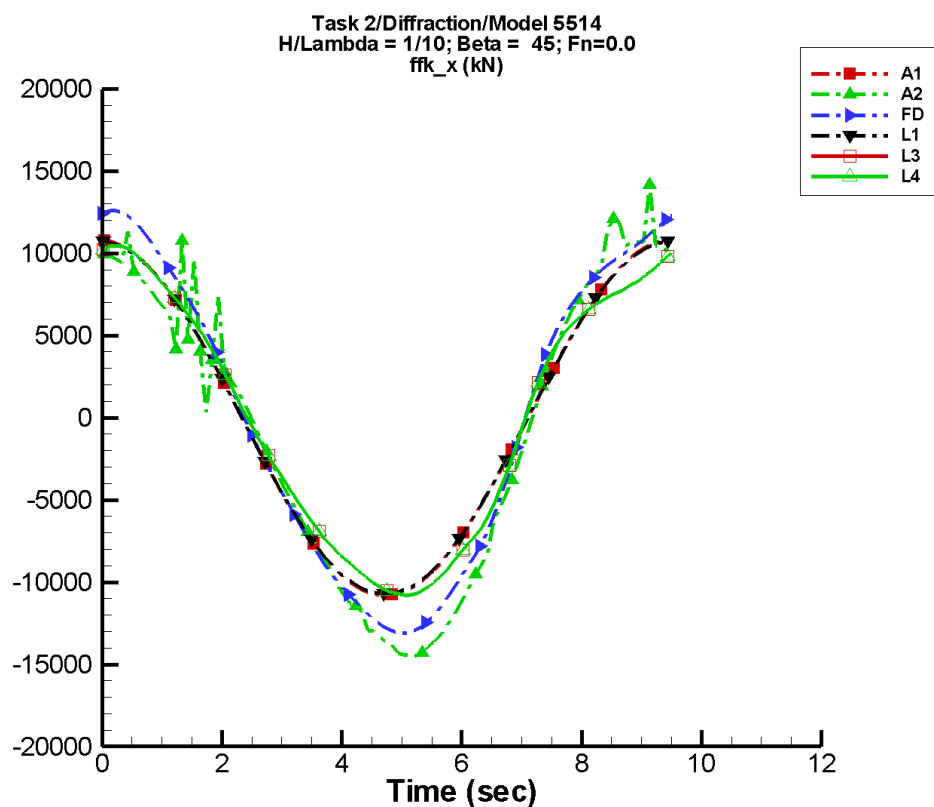
Table H-1053. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.93	7.19E+03	87	9.53	30
A2	-110.	7.78E+03	86	1.07E+03	179
FD	-4.03	7.76E+03	88	839.	-177
L1	-4.19	7.14E+03	88	5.51	43
L3	7.54	6.88E+03	89	823.	-172
L4	7.54	6.88E+03	89	823.	-172
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1054. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.19E+03	-7.11E+03	7.15E+03
A2	-8.01E+03	8.37E+03	-7.91E+03	8.03E+03
FD	-7.76E+03	7.73E+03	-7.67E+03	7.63E+03
L1	-7.14E+03	7.14E+03	-7.11E+03	7.13E+03
L3	-6.89E+03	6.84E+03	-6.86E+03	6.81E+03
L4	-6.89E+03	6.84E+03	-6.86E+03	6.81E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-528. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

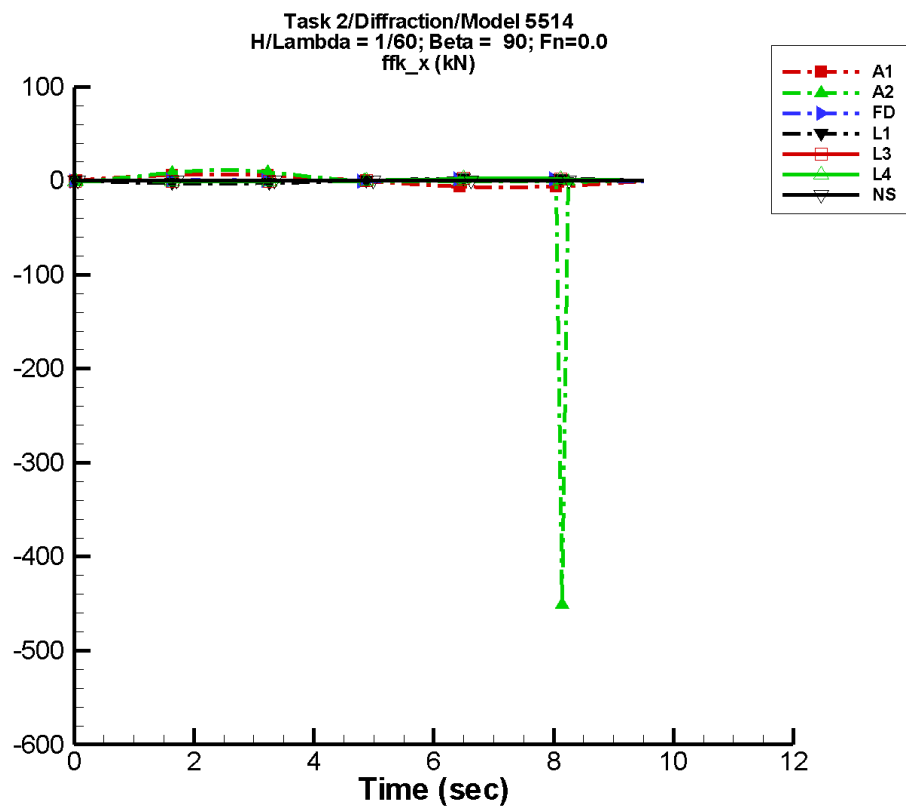
Table H-1055. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-10.4	1.08E+04	87	14.3	30
A2	-667.	1.24E+04	88	1.93E+03	-147
FD	40.0	1.27E+04	84	583.	-164
L1	-6.29	1.07E+04	88	8.26	43
L3	43.7	1.05E+04	85	498.	-141
L4	43.7	1.05E+04	85	498.	-141
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1056. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.07E+04	1.07E+04
A2	-1.45E+04	1.42E+04	-1.42E+04	1.12E+04
FD	-1.31E+04	1.26E+04	-1.29E+04	1.27E+04
L1	-1.07E+04	1.07E+04	-1.07E+04	1.07E+04
L3	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
L4	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-529. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1057. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

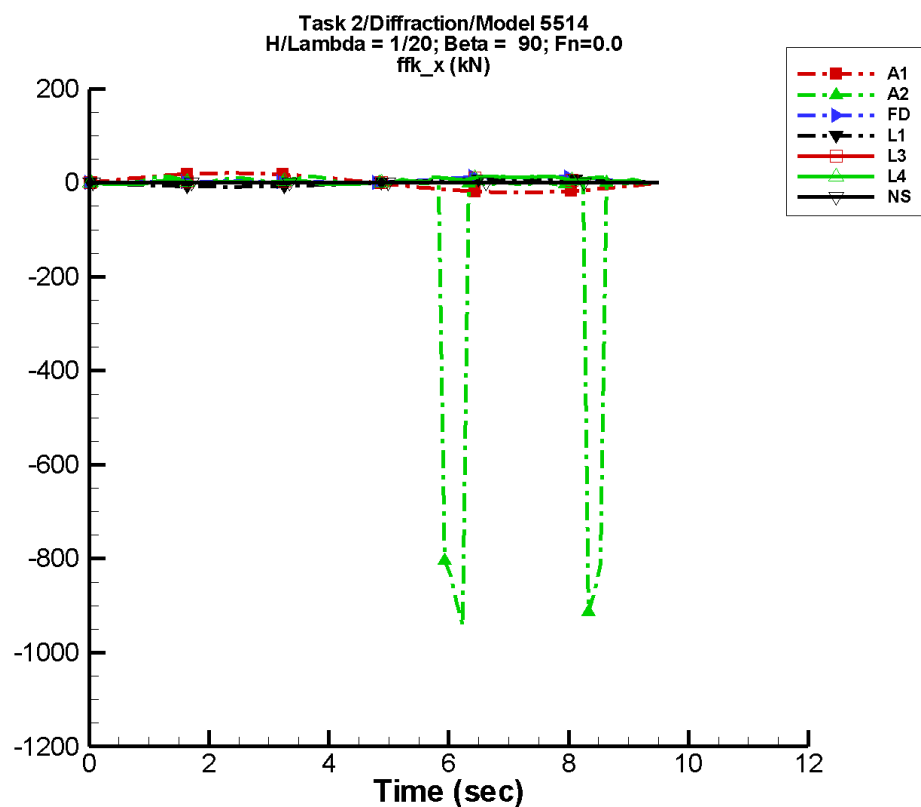
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.03E-03	6.91	-5	7.85E-03	-28
A2	-2.21	13.8	-32	7.95	-7
FD	0.666	0.506	173	0.710	-101
L1	-1.25E-03	2.78	176	2.16E-03	-151
L3	0.702	1.46	176	0.469	-100
L4	0.702	1.46	176	0.469	-100
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1058. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.91	6.91	-6.84	6.83
A2	-451.	11.6	-60.6	11.3
FD	-0.285	2.30	-0.152	2.09
L1	-2.78	2.78	-2.77	2.77
L3	-0.553	2.84	-0.547	2.81
L4	-0.553	2.84	-0.547	2.81
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-530. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

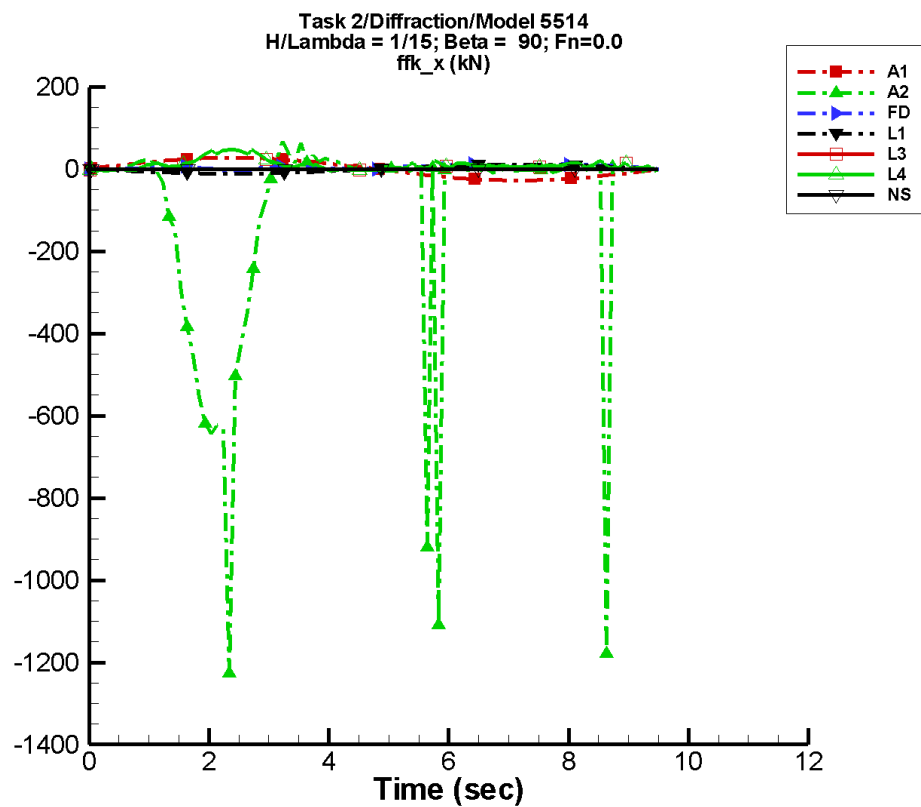
Table H-1059. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.50E-02	20.7	-5	2.35E-02	-28
A2	-59.1	97.5	2	18.4	135
FD	4.16	4.60	175	3.09	-101
L1	-3.65E-03	8.33	176	6.63E-03	-151
L3	4.12	5.08	177	3.99	-96
L4	4.12	5.08	177	3.99	-96
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1060. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-20.7	20.7	-20.5	20.4
A2	-942.	40.3	-440.	30.8
FD	-0.213	13.4	3.93E-03	10.8
L1	-8.33	8.33	-8.30	8.30
L3	-3.34	13.2	-3.01	12.9
L4	-3.34	13.2	-3.01	12.9
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-531. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

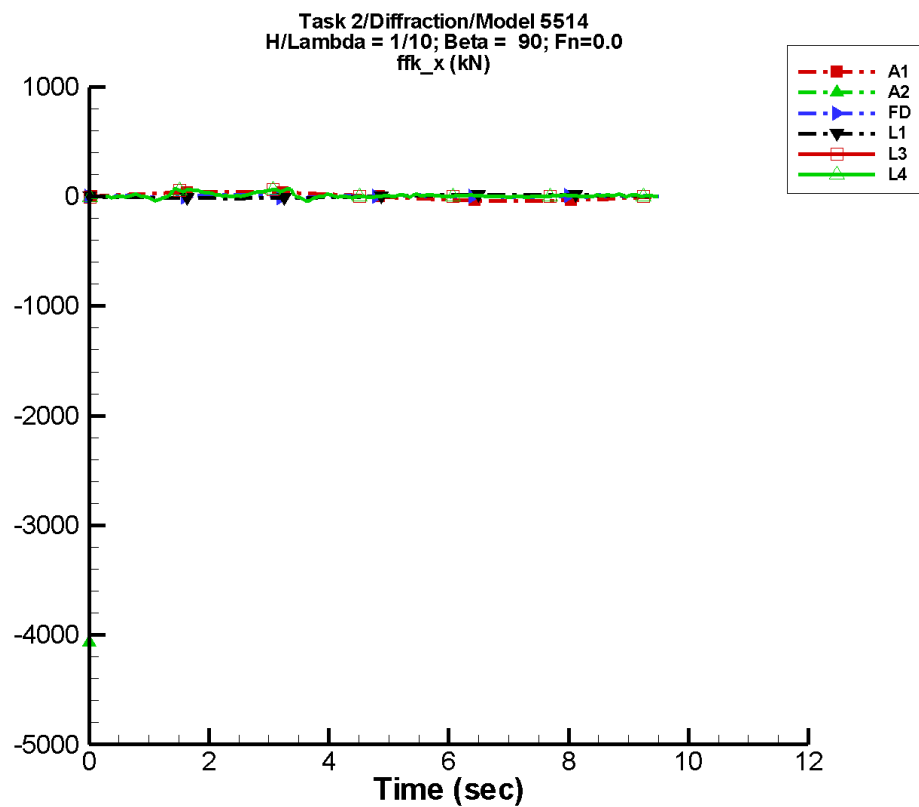
Table H-1061. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.00E-02	27.5	-5	3.13E-02	-28
A2	-99.0	95.7	173	136.	101
FD	4.34	3.84	177	1.09	-103
L1	-4.96E-03	11.1	176	8.70E-03	-151
L3	9.70	8.12	-12	12.1	-92
L4	9.70	8.12	-12	12.1	-92
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1062. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-27.5	27.5	-27.2	27.2
A2	-1.23E+03	66.7	-650.	39.1
FD	-4.75	14.6	-2.63	10.0
L1	-11.1	11.1	-11.1	11.1
L3	-3.26	47.0	-2.11	44.7
L4	-3.26	47.0	-2.11	44.7
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-532. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

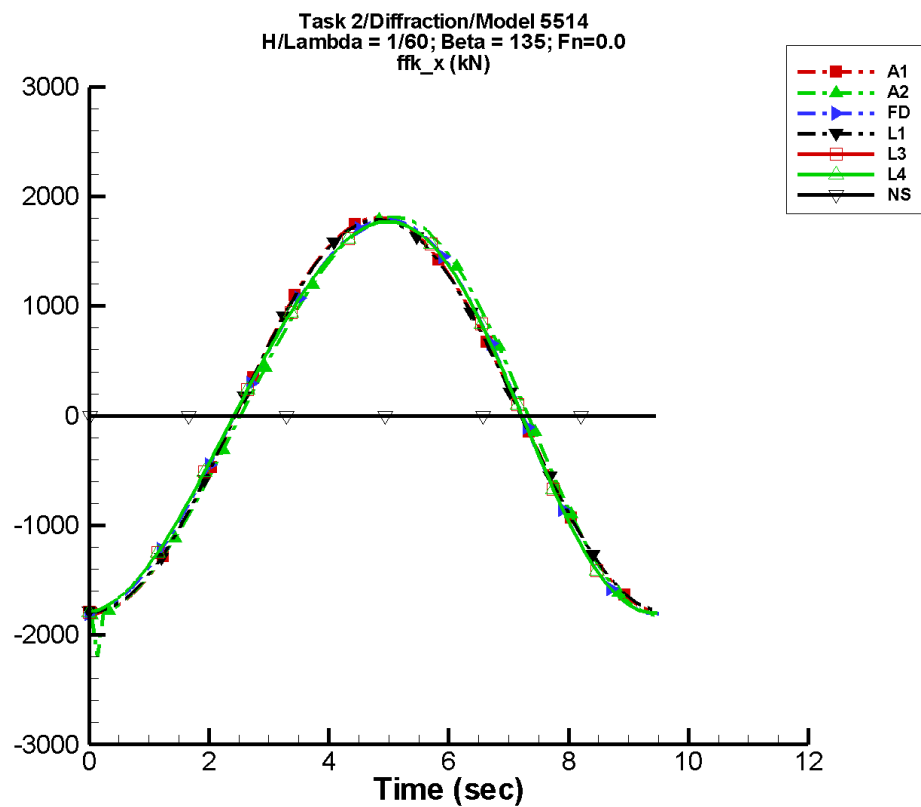
Table H-1063. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.01E-02	41.4	-5	4.70E-02	-28
A2	2.96E+03	9.10E+03	109	6.74E+03	143
FD	2.36	1.02	8	0.840	-104
L1	-7.30E-03	16.7	176	1.33E-02	-151
L3	8.38	10.8	-11	10.2	-90
L4	8.38	10.8	-11	10.2	-90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1064. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-41.4	41.3	-40.9	40.9
A2	-4.12E+03	-4.07E+03	-4.12E+03	-4.07E+03
FD	-13.7	17.0	-5.98	13.9
L1	-16.7	16.7	-16.6	16.6
L3	-42.0	75.3	-13.1	56.3
L4	-42.0	75.3	-13.1	56.3
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-533. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1065. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

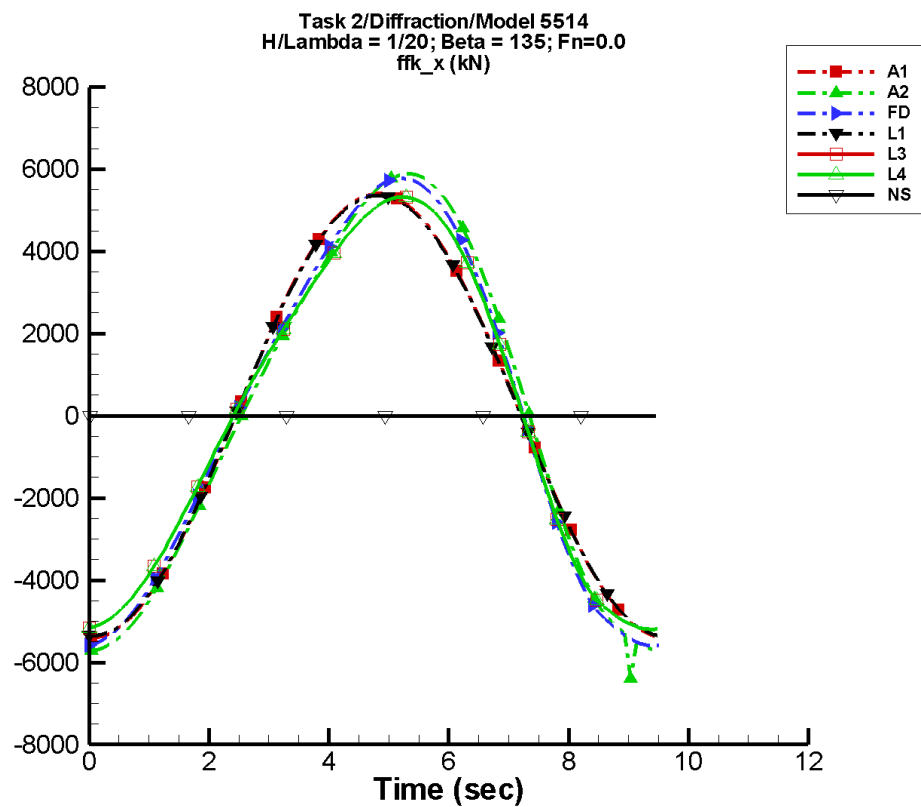
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.83	1.80E+03	-97	2.47	-153
A2	2.16	1.82E+03	-101	91.0	-33
FD	0.679	1.79E+03	-98	89.1	-24
L1	4.00E-03	1.78E+03	-96	8.15E-02	-6
L3	0.892	1.78E+03	-96	95.7	-22
L4	0.892	1.78E+03	-96	95.7	-22
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1066. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.81E+03	1.79E+03
A2	-2.20E+03	1.81E+03	-1.87E+03	1.79E+03
FD	-1.81E+03	1.79E+03	-1.79E+03	1.77E+03
L1	-1.79E+03	1.79E+03	-1.80E+03	1.78E+03
L3	-1.80E+03	1.77E+03	-1.79E+03	1.76E+03
L4	-1.80E+03	1.77E+03	-1.79E+03	1.76E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-534. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

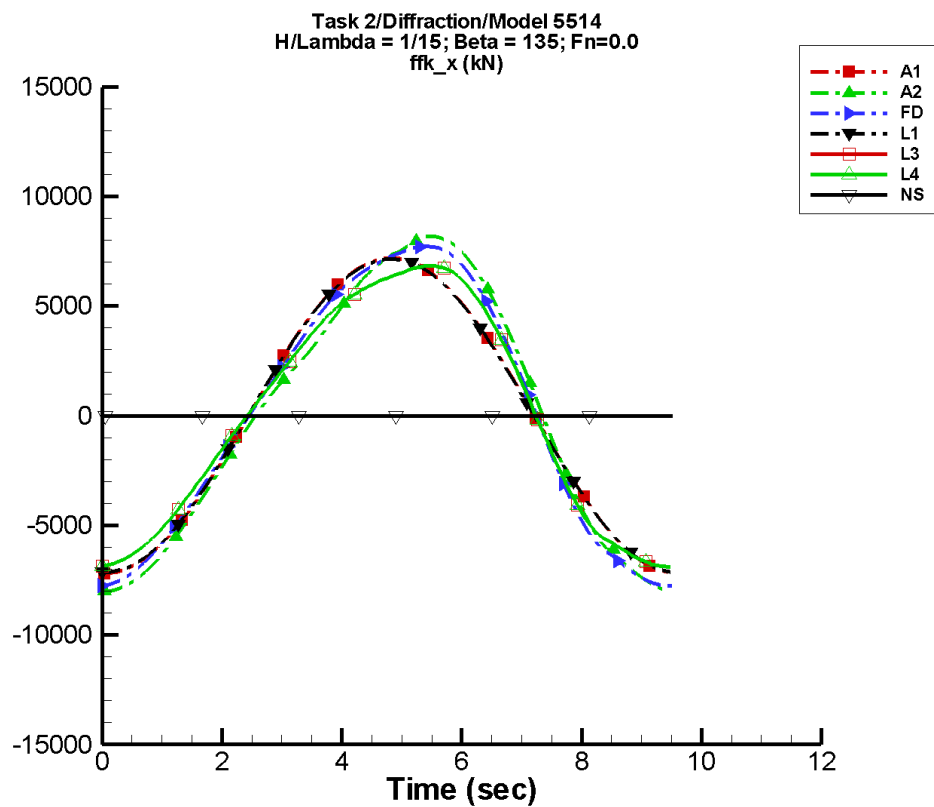
Table H-1067. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.48	5.40E+03	-97	7.39	-153
A2	-7.66	5.75E+03	-102	637.	-26
FD	-8.17E-02	5.64E+03	-99	618.	-20
L1	1.19E-02	5.35E+03	-96	0.243	-6
L3	-3.67E-02	5.23E+03	-97	619.	-18
L4	-3.67E-02	5.23E+03	-97	619.	-18
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1068. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.40E+03	-5.40E+03	5.34E+03
A2	-6.39E+03	5.88E+03	-5.70E+03	5.81E+03
FD	-5.60E+03	5.77E+03	-5.54E+03	5.70E+03
L1	-5.36E+03	5.36E+03	-5.39E+03	5.34E+03
L3	-5.20E+03	5.32E+03	-5.18E+03	5.29E+03
L4	-5.20E+03	5.32E+03	-5.18E+03	5.29E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-535. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

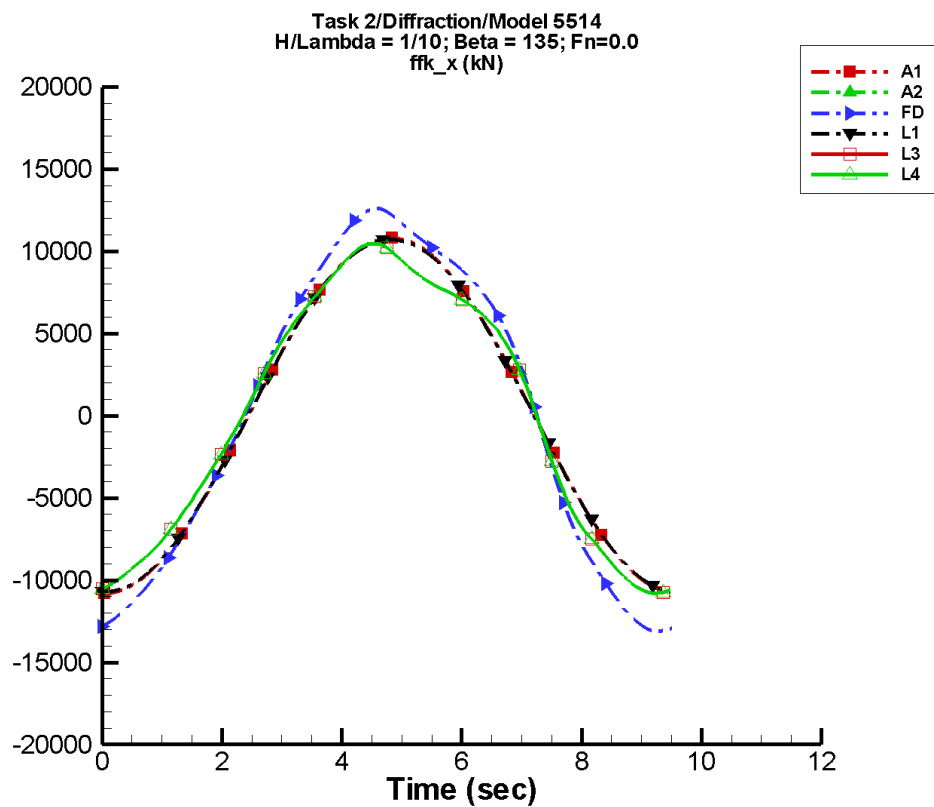
Table H-1069. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	7.30	7.19E+03	-97	9.84	-153
A2	-75.1	7.89E+03	-104	1.03E+03	-28
FD	7.04	7.77E+03	-99	833.	-24
L1	1.61E-02	7.14E+03	-96	0.324	-6
L3	11.5	6.91E+03	-97	797.	-23
L4	11.5	6.91E+03	-97	797.	-23
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1070. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.19E+03	-7.20E+03	7.11E+03
A2	-8.01E+03	8.20E+03	-8.00E+03	8.03E+03
FD	-7.76E+03	7.73E+03	-7.70E+03	7.63E+03
L1	-7.14E+03	7.14E+03	-7.19E+03	7.11E+03
L3	-6.88E+03	6.84E+03	-6.86E+03	6.81E+03
L4	-6.88E+03	6.84E+03	-6.86E+03	6.81E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-536. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

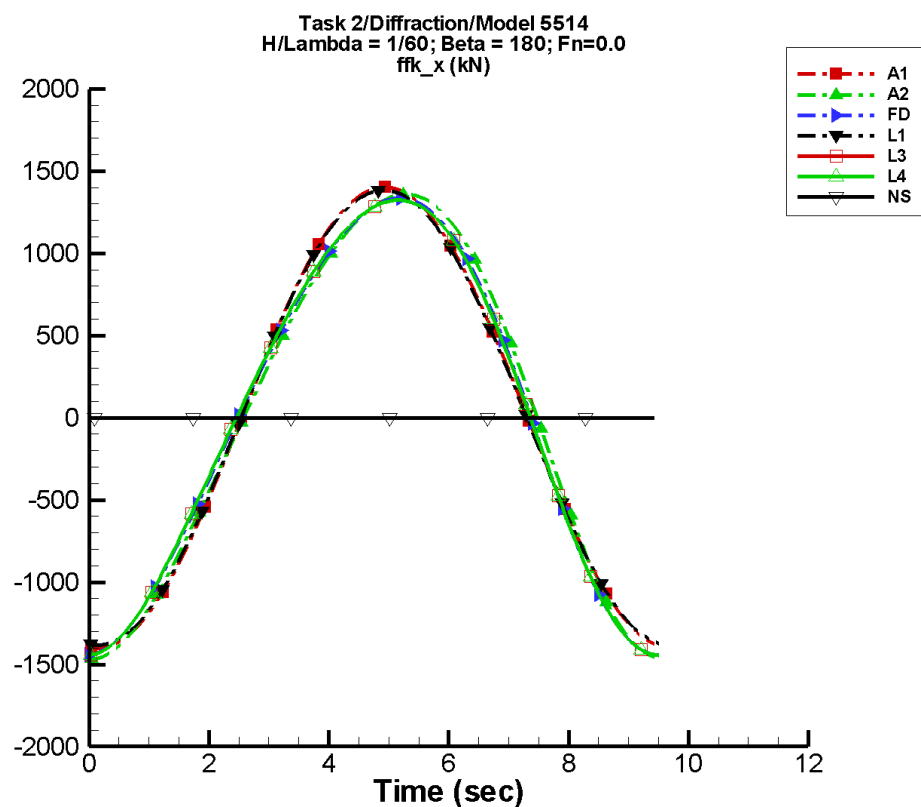
Table H-1071. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	11.0	1.08E+04	-97	14.8	-153
A2	-5.65E+03	2.08E+04	-145	8.89E+03	29
FD	34.8	1.26E+04	-95	596.	-39
L1	2.34E-02	1.07E+04	-96	0.486	-6
L3	48.4	1.04E+04	-92	453.	-46
L4	48.4	1.04E+04	-92	453.	-46
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1072. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.08E+04	1.07E+04
A2	-1.06E+04	-9.89E+03	-1.06E+04	-9.89E+03
FD	-1.31E+04	1.26E+04	-1.29E+04	1.23E+04
L1	-1.07E+04	1.07E+04	-1.08E+04	1.07E+04
L3	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
L4	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-537. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1073. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

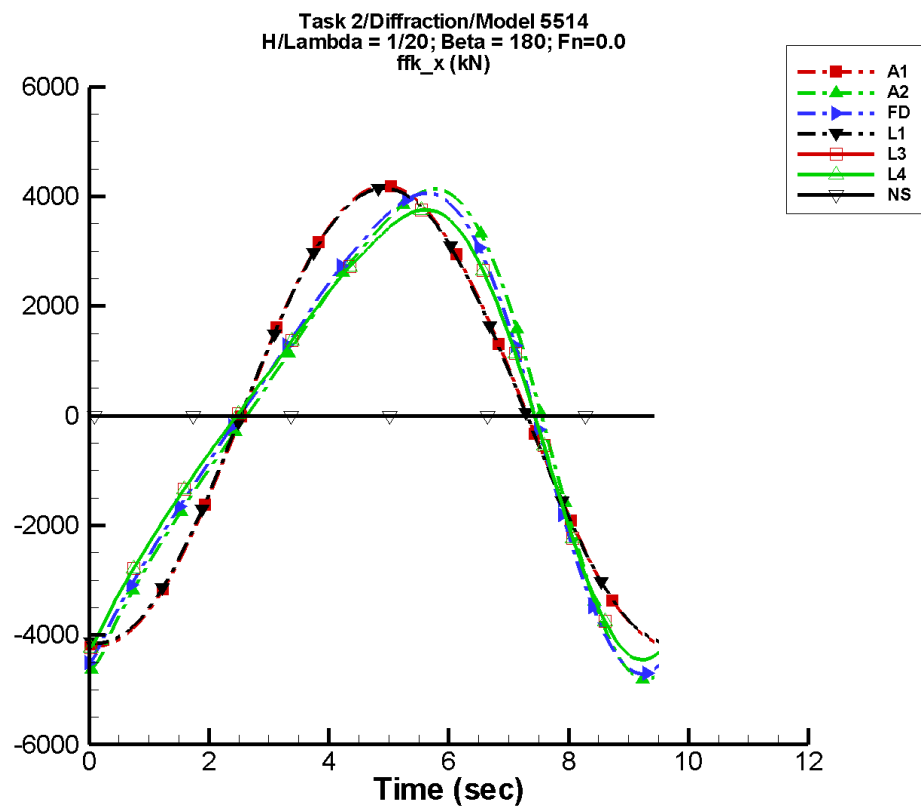
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.48	1.40E+03	-101	1.97	-156
A2	4.79	1.40E+03	-105	125.	-57
FD	0.977	1.37E+03	-102	119.	-50
L1	0.378	1.38E+03	-99	0.599	156
L3	0.946	1.37E+03	-99	115.	-50
L4	0.946	1.37E+03	-99	115.	-50
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1074. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.40E+03	1.40E+03	-1.40E+03	1.39E+03
A2	-1.47E+03	1.36E+03	-1.47E+03	1.34E+03
FD	-1.44E+03	1.33E+03	-1.43E+03	1.32E+03
L1	-1.38E+03	1.38E+03	-1.39E+03	1.38E+03
L3	-1.45E+03	1.32E+03	-1.45E+03	1.32E+03
L4	-1.45E+03	1.32E+03	-1.45E+03	1.32E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-538. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

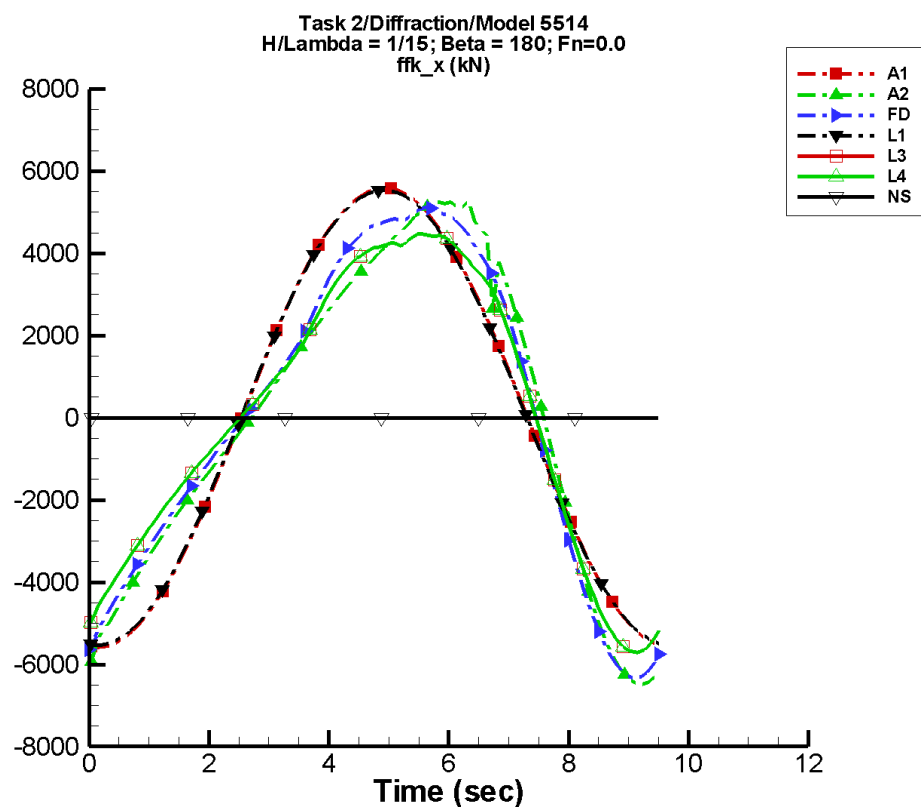
Table H-1075. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.44	4.19E+03	-101	5.90	-156
A2	3.96	4.03E+03	-106	1.03E+03	-46
FD	18.5	3.97E+03	-103	930.	-38
L1	1.13	4.15E+03	-99	1.80	156
L3	7.23	3.68E+03	-100	904.	-35
L4	7.23	3.68E+03	-100	904.	-35
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1076. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.19E+03	4.19E+03	-4.20E+03	4.15E+03
A2	-5.19E+03	4.14E+03	-4.70E+03	4.08E+03
FD	-4.71E+03	4.06E+03	-4.61E+03	4.00E+03
L1	-4.15E+03	4.15E+03	-4.17E+03	4.13E+03
L3	-4.46E+03	3.76E+03	-4.42E+03	3.74E+03
L4	-4.46E+03	3.76E+03	-4.42E+03	3.74E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-539. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

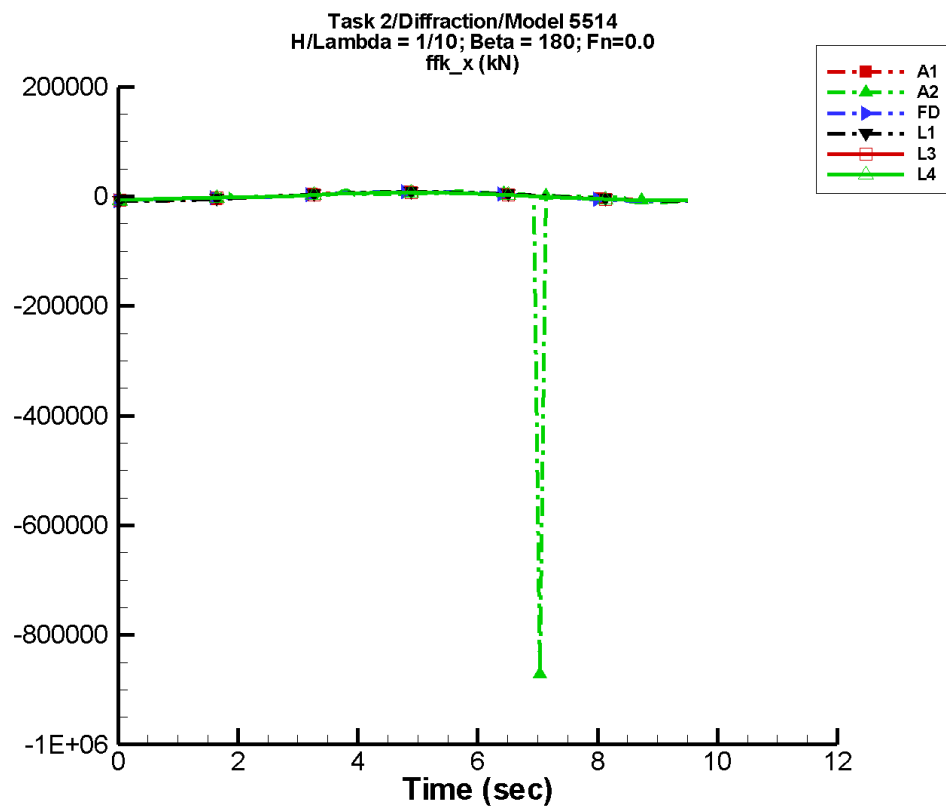
Table H-1077. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.91	5.58E+03	-101	7.86	-156
A2	-48.1	5.05E+03	-107	1.51E+03	-45
FD	32.2	5.15E+03	-103	1.27E+03	-32
L1	1.51	5.53E+03	-99	2.40	156
L3	19.9	4.52E+03	-100	1.18E+03	-30
L4	19.9	4.52E+03	-100	1.18E+03	-30
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1078. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.58E+03	5.58E+03	-5.59E+03	5.52E+03
A2	-6.48E+03	5.25E+03	-6.29E+03	5.18E+03
FD	-6.33E+03	5.12E+03	-6.14E+03	5.00E+03
L1	-5.53E+03	5.53E+03	-5.55E+03	5.51E+03
L3	-5.71E+03	4.47E+03	-5.65E+03	4.44E+03
L4	-5.71E+03	4.47E+03	-5.65E+03	4.44E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-540. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

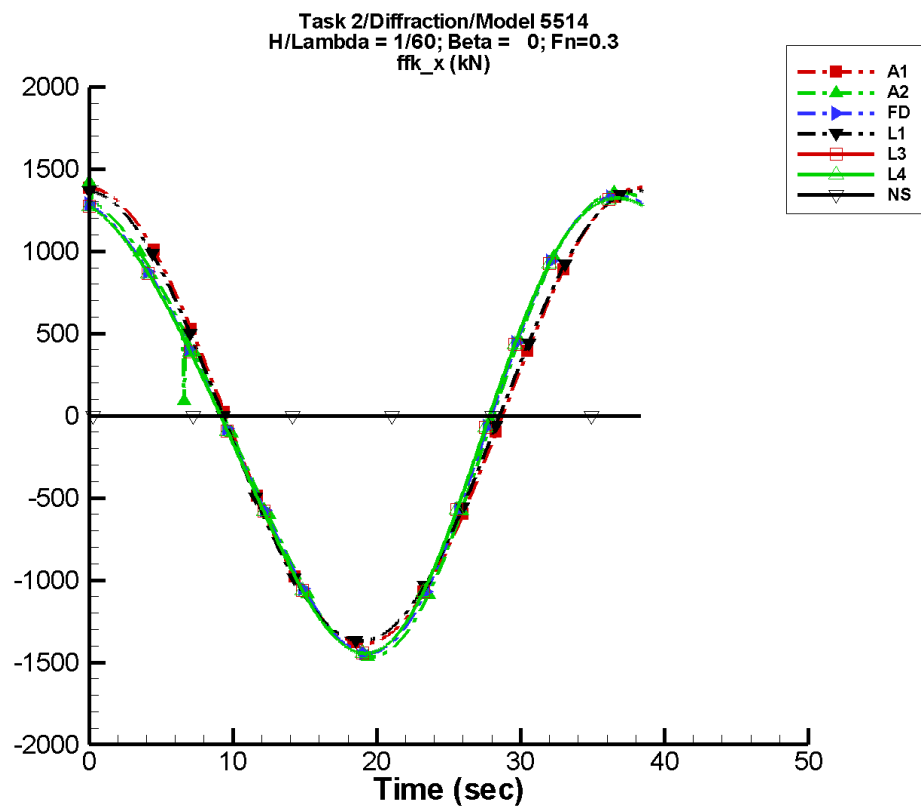
Table H-1079. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	8.88	8.39E+03	-101	11.8	-156
A2	-9.53E+03	1.88E+04	-25	1.50E+04	87
FD	35.3	8.09E+03	-95	1.47E+03	17
L1	2.27	8.29E+03	-99	3.60	156
L3	2.34	6.55E+03	-91	1.17E+03	26
L4	2.34	6.55E+03	-91	1.17E+03	26
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1080. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.39E+03	8.39E+03	-8.40E+03	8.29E+03
A2	-8.72E+05	1.05E+04	-1.15E+05	1.65E+04
FD	-8.73E+03	8.97E+03	-8.52E+03	8.69E+03
L1	-8.30E+03	8.29E+03	-8.33E+03	8.26E+03
L3	-7.02E+03	7.53E+03	-6.98E+03	7.33E+03
L4	-7.02E+03	7.53E+03	-6.98E+03	7.33E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-541. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1081. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

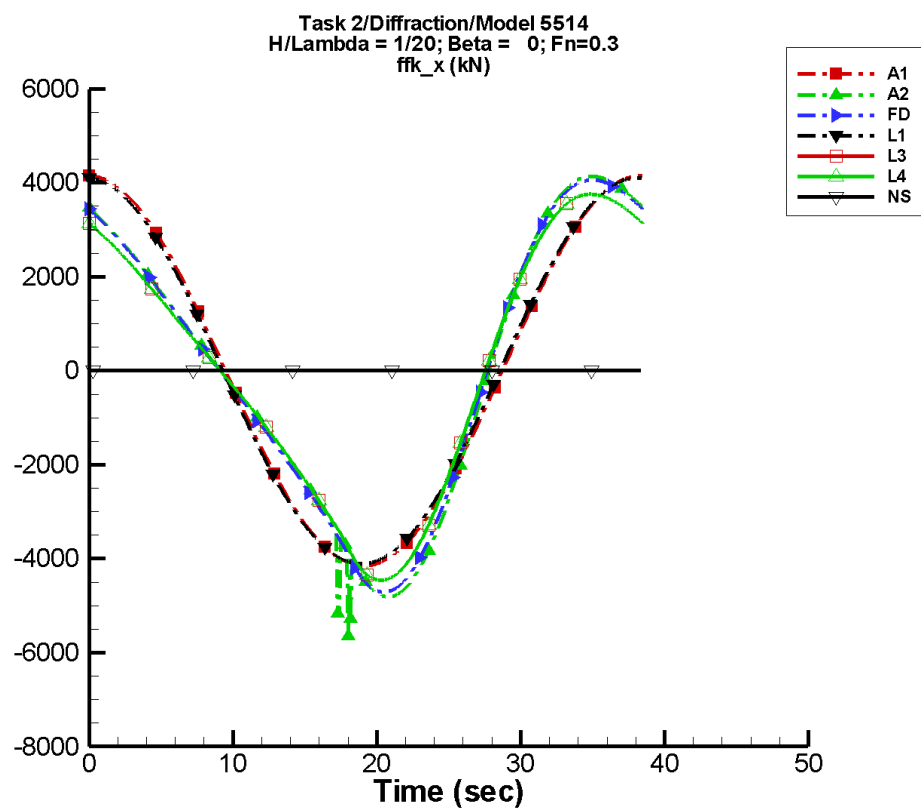
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.06	1.39E+03	97	1.60	-154
A2	2.85	1.40E+03	100	125.	-134
FD	3.91	1.37E+03	104	121.	-125
L1	2.49	1.37E+03	96	1.64	-78
L3	2.78	1.37E+03	100	116.	-127
L4	2.78	1.37E+03	100	116.	-127
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1082. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.39E+03	1.39E+03	-1.39E+03	1.39E+03
A2	-1.47E+03	1.36E+03	-1.47E+03	1.36E+03
FD	-1.44E+03	1.33E+03	-1.44E+03	1.33E+03
L1	-1.37E+03	1.37E+03	-1.37E+03	1.37E+03
L3	-1.45E+03	1.32E+03	-1.44E+03	1.32E+03
L4	-1.45E+03	1.32E+03	-1.44E+03	1.32E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-542. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

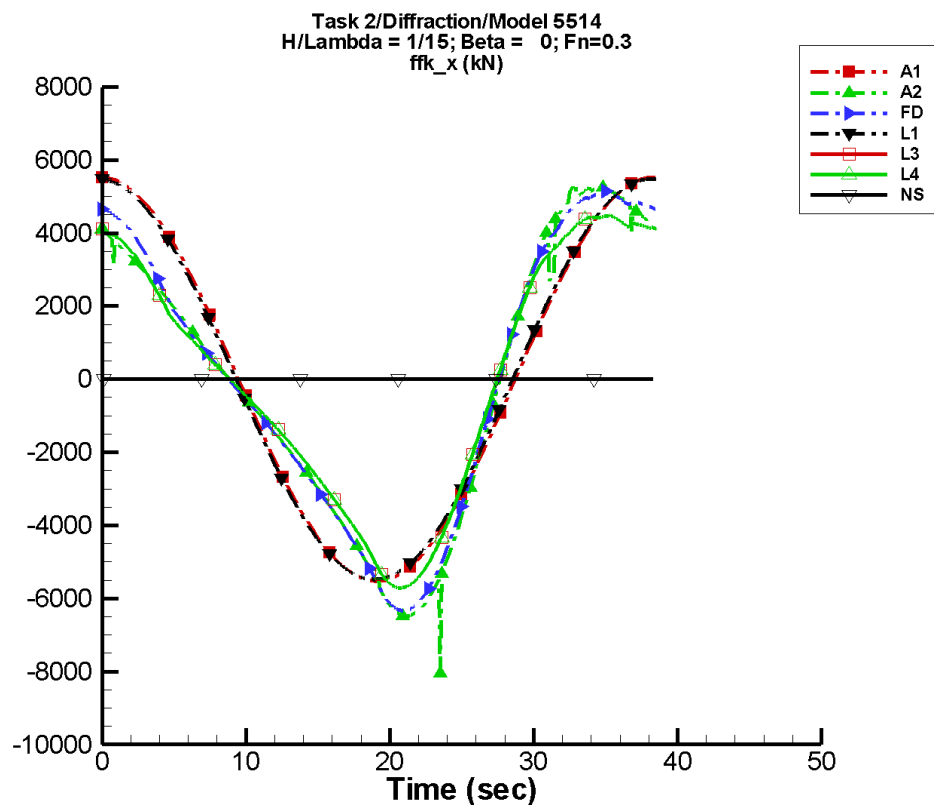
Table H-1083. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.17	4.15E+03	97	4.79	-154
A2	-10.9	4.08E+03	102	1.00E+03	-142
FD	20.3	4.00E+03	105	957.	-137
L1	7.48	4.11E+03	96	4.91	-78
L3	9.66	3.70E+03	101	905.	-140
L4	9.66	3.70E+03	101	905.	-140
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1084. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.15E+03	4.15E+03	-4.15E+03	4.15E+03
A2	-5.65E+03	4.14E+03	-4.81E+03	4.13E+03
FD	-4.71E+03	4.06E+03	-4.71E+03	4.05E+03
L1	-4.11E+03	4.11E+03	-4.11E+03	4.11E+03
L3	-4.46E+03	3.76E+03	-4.46E+03	3.76E+03
L4	-4.46E+03	3.76E+03	-4.46E+03	3.76E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-543. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

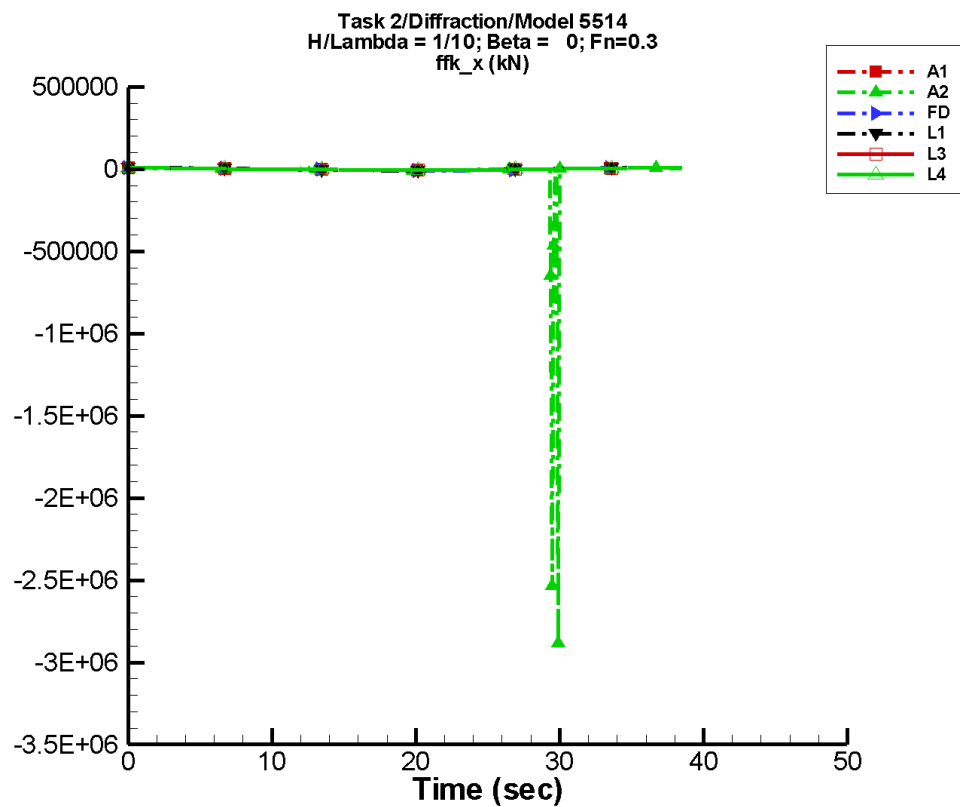
Table H-1085. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.22	5.52E+03	97	6.37	-154
A2	-72.5	5.13E+03	102	1.49E+03	-142
FD	37.8	5.22E+03	105	1.32E+03	-141
L1	9.97	5.48E+03	96	6.55	-78
L3	16.4	4.57E+03	101	1.18E+03	-143
L4	16.4	4.57E+03	101	1.18E+03	-143
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1086. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.52E+03	5.52E+03	-5.52E+03	5.53E+03
A2	-8.04E+03	5.36E+03	-6.48E+03	5.22E+03
FD	-6.33E+03	5.14E+03	-6.32E+03	5.11E+03
L1	-5.48E+03	5.48E+03	-5.48E+03	5.48E+03
L3	-5.71E+03	4.48E+03	-5.71E+03	4.47E+03
L4	-5.71E+03	4.48E+03	-5.71E+03	4.47E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-544. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

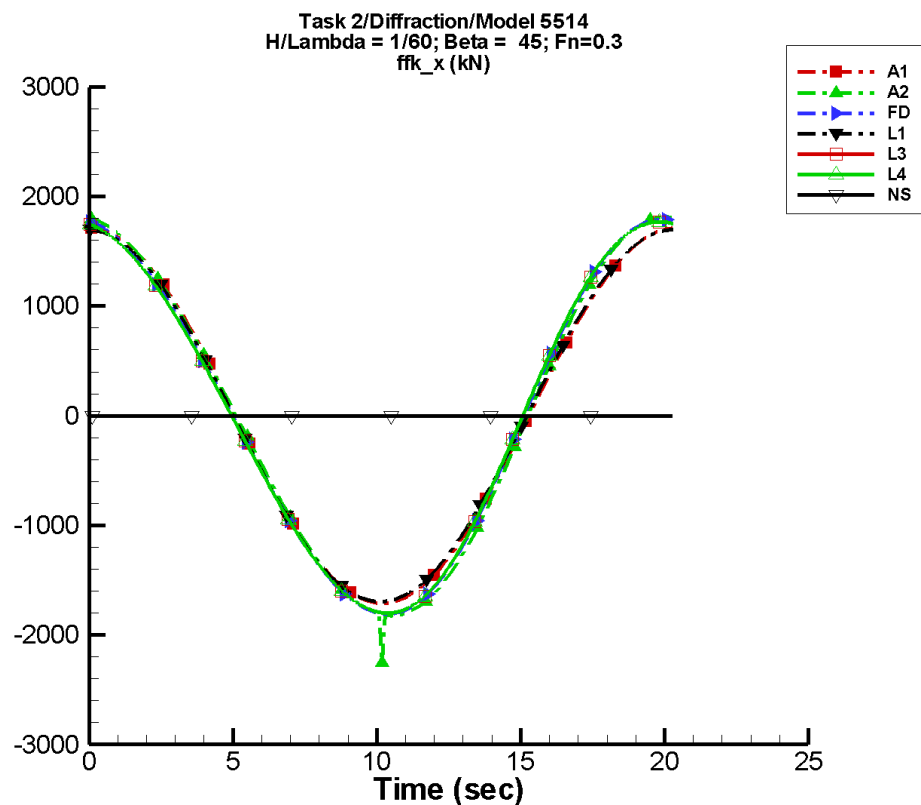
Table H-1087. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	6.34	8.30E+03	97	9.57	-154
A2	-1.79E+04	3.33E+04	5	2.88E+04	90
FD	39.8	8.14E+03	97	1.41E+03	171
L1	15.0	8.23E+03	96	9.82	-78
L3	21.3	6.61E+03	92	1.06E+03	157
L4	21.3	6.61E+03	92	1.06E+03	157
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1088. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.30E+03	8.30E+03	-8.29E+03	8.30E+03
A2	-2.88E+06	1.18E+04	-7.32E+05	3.22E+04
FD	-8.74E+03	8.96E+03	-8.69E+03	8.90E+03
L1	-8.22E+03	8.22E+03	-8.22E+03	8.22E+03
L3	-7.03E+03	7.54E+03	-7.01E+03	7.50E+03
L4	-7.03E+03	7.54E+03	-7.01E+03	7.50E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-545. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1089. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

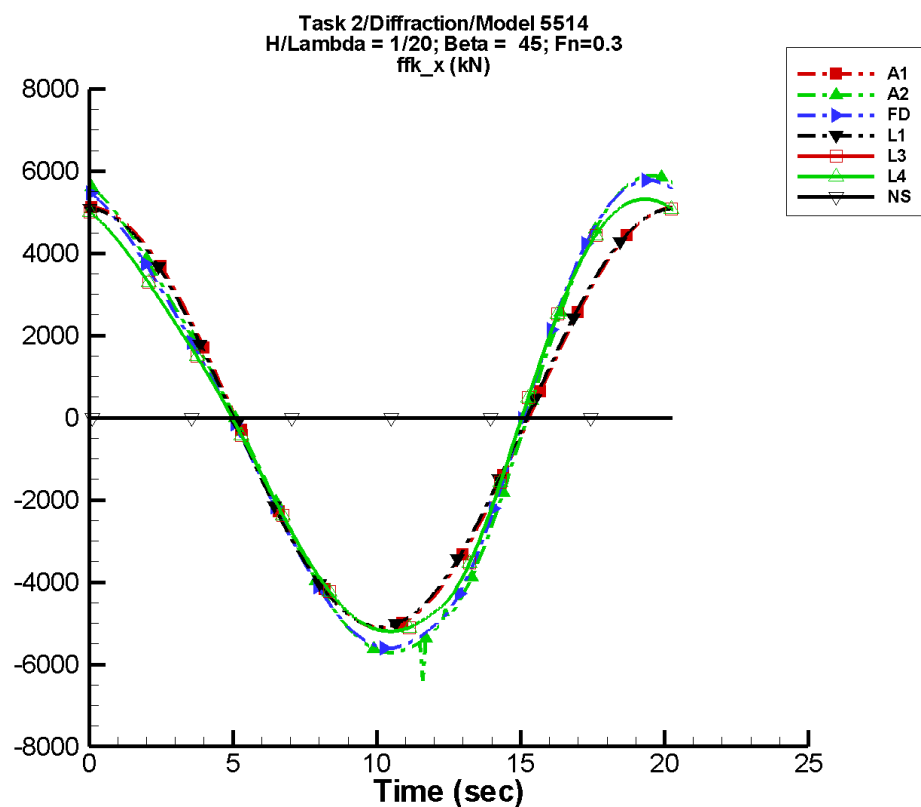
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.04	1.71E+03	81	3.03	-5
A2	-1.52	1.82E+03	82	88.4	173
FD	-1.73	1.79E+03	81	88.1	168
L1	2.04E-04	1.69E+03	87	0.208	174
L3	0.890	1.78E+03	89	96.0	-171
L4	0.890	1.78E+03	89	96.0	-171
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1090. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.71E+03	1.71E+03	-1.71E+03	1.71E+03
A2	-2.25E+03	1.81E+03	-1.87E+03	1.81E+03
FD	-1.81E+03	1.79E+03	-1.80E+03	1.79E+03
L1	-1.70E+03	1.70E+03	-1.70E+03	1.70E+03
L3	-1.80E+03	1.77E+03	-1.80E+03	1.77E+03
L4	-1.80E+03	1.77E+03	-1.80E+03	1.77E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-546. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

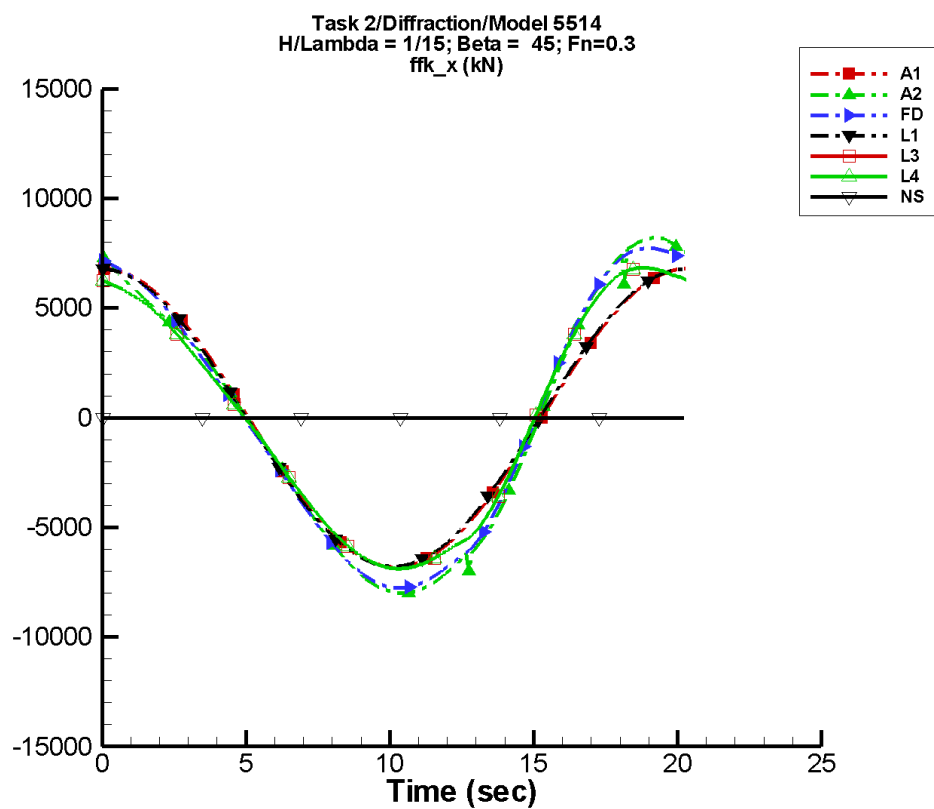
Table H-1091. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.09	5.12E+03	81	9.07	-5
A2	-8.33	5.72E+03	83	646.	168
FD	-7.80	5.62E+03	82	633.	163
L1	2.07E-04	5.08E+03	87	0.624	174
L3	-1.40	5.22E+03	90	620.	-174
L4	-1.40	5.22E+03	90	620.	-174
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1092. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.12E+03	5.12E+03	-5.10E+03	5.12E+03
A2	-6.40E+03	5.88E+03	-5.70E+03	5.87E+03
FD	-5.60E+03	5.77E+03	-5.59E+03	5.76E+03
L1	-5.09E+03	5.09E+03	-5.10E+03	5.10E+03
L3	-5.20E+03	5.32E+03	-5.19E+03	5.31E+03
L4	-5.20E+03	5.32E+03	-5.19E+03	5.31E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-547. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

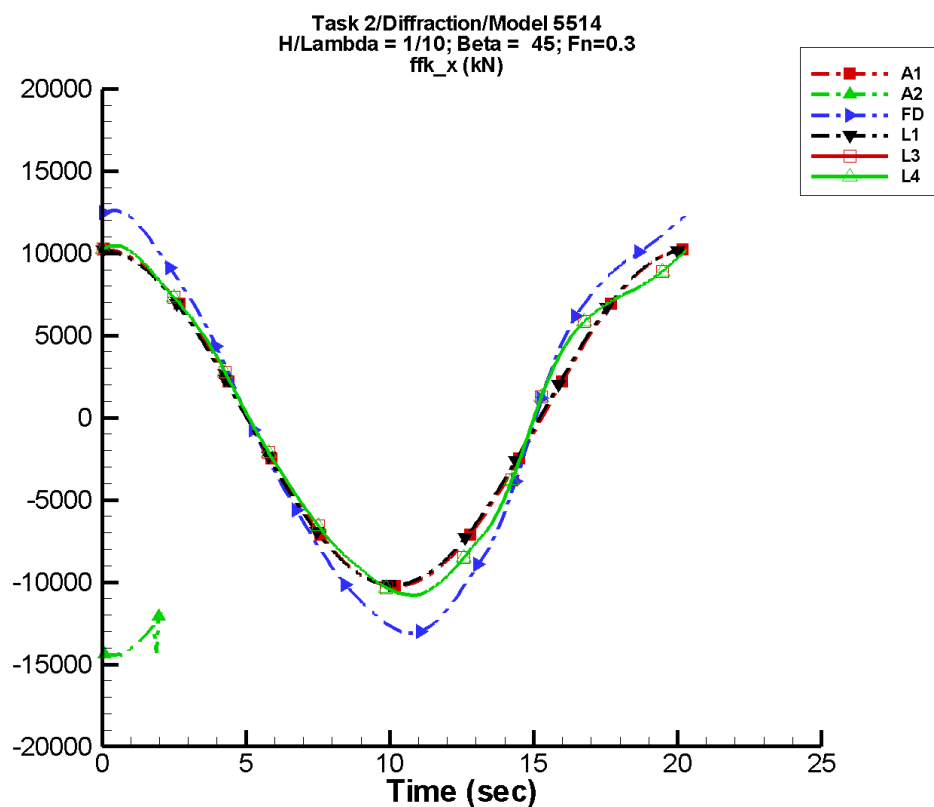
Table H-1093. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.11	6.81E+03	81	12.1	-5
A2	-98.1	7.82E+03	88	1.07E+03	179
FD	-6.47	7.74E+03	82	856.	169
L1	3.16E-04	6.78E+03	87	0.832	174
L3	4.31	6.89E+03	91	802.	-169
L4	4.31	6.89E+03	91	802.	-169
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1094. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.81E+03	6.81E+03	-6.80E+03	6.82E+03
A2	-8.01E+03	8.36E+03	-7.99E+03	8.19E+03
FD	-7.77E+03	7.73E+03	-7.75E+03	7.71E+03
L1	-6.79E+03	6.79E+03	-6.80E+03	6.80E+03
L3	-6.89E+03	6.84E+03	-6.88E+03	6.83E+03
L4	-6.89E+03	6.84E+03	-6.88E+03	6.83E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-548. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

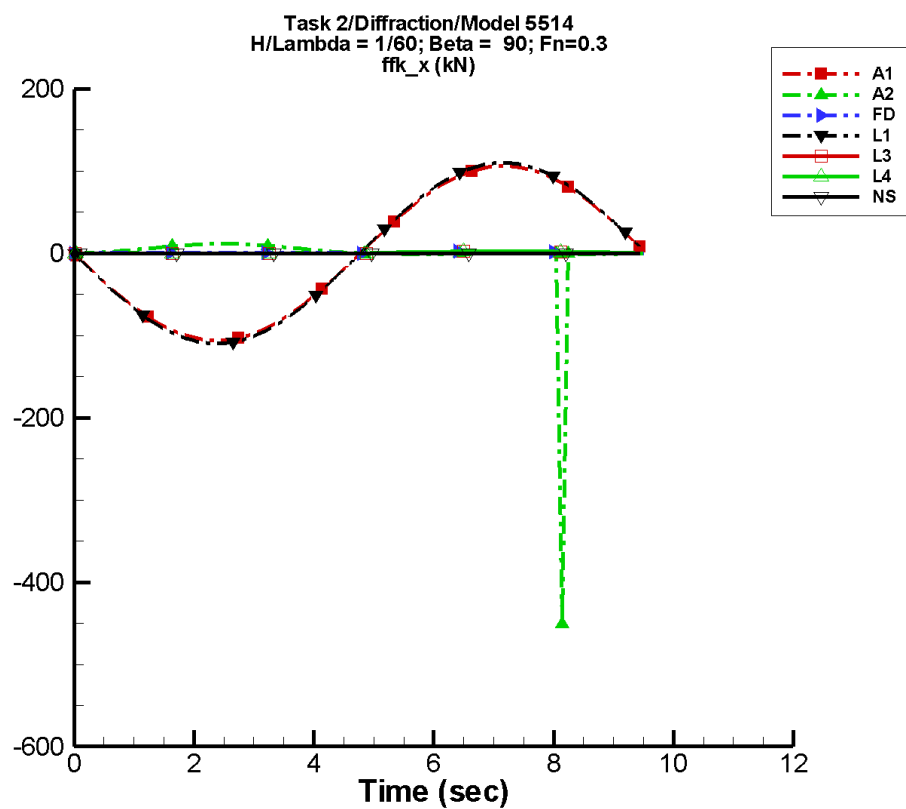
Table H-1095. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.2	1.02E+04	81	18.1	-5
A2	-1.30E+04	8.68E+03	99	9.96E+03	-103
FD	27.4	1.27E+04	78	599.	-169
L1	1.19E-03	1.02E+04	87	1.25	174
L3	57.3	1.04E+04	86	445.	-148
L4	57.3	1.04E+04	86	445.	-148
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1096. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.02E+04	1.02E+04	-1.02E+04	1.02E+04
A2	-1.45E+04	-26.7	-1.44E+04	124.
FD	-1.31E+04	1.26E+04	-1.31E+04	1.25E+04
L1	-1.02E+04	1.02E+04	-1.02E+04	1.02E+04
L3	-1.08E+04	1.05E+04	-1.08E+04	1.04E+04
L4	-1.08E+04	1.05E+04	-1.08E+04	1.04E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-549. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1097. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

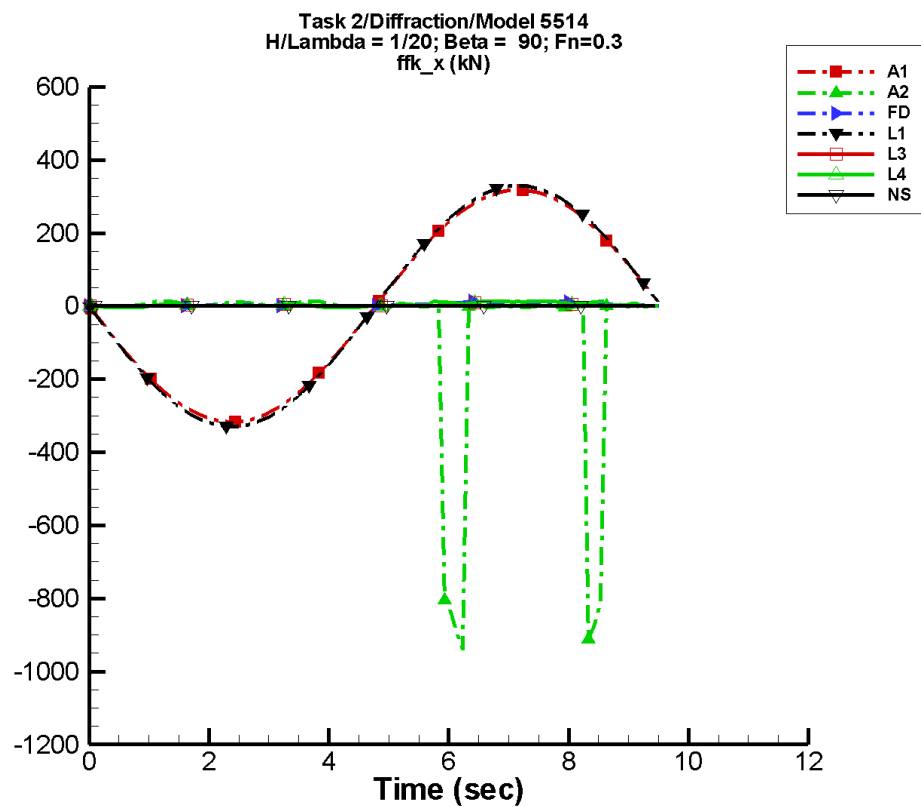
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	7.72E-02	106.	175	0.120	152
A2	-2.21	13.8	-32	7.95	-7
FD	0.666	0.506	173	0.710	-101
L1	-4.83E-02	110.	176	8.67E-02	-151
L3	0.702	1.46	176	0.469	-100
L4	0.702	1.46	176	0.469	-100
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1098. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-106.	106.	-105.	105.
A2	-451.	11.6	-60.6	11.3
FD	-0.285	2.30	-0.151	2.09
L1	-110.	110.	-109.	109.
L3	-0.553	2.84	-0.547	2.81
L4	-0.553	2.84	-0.547	2.81
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-550. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

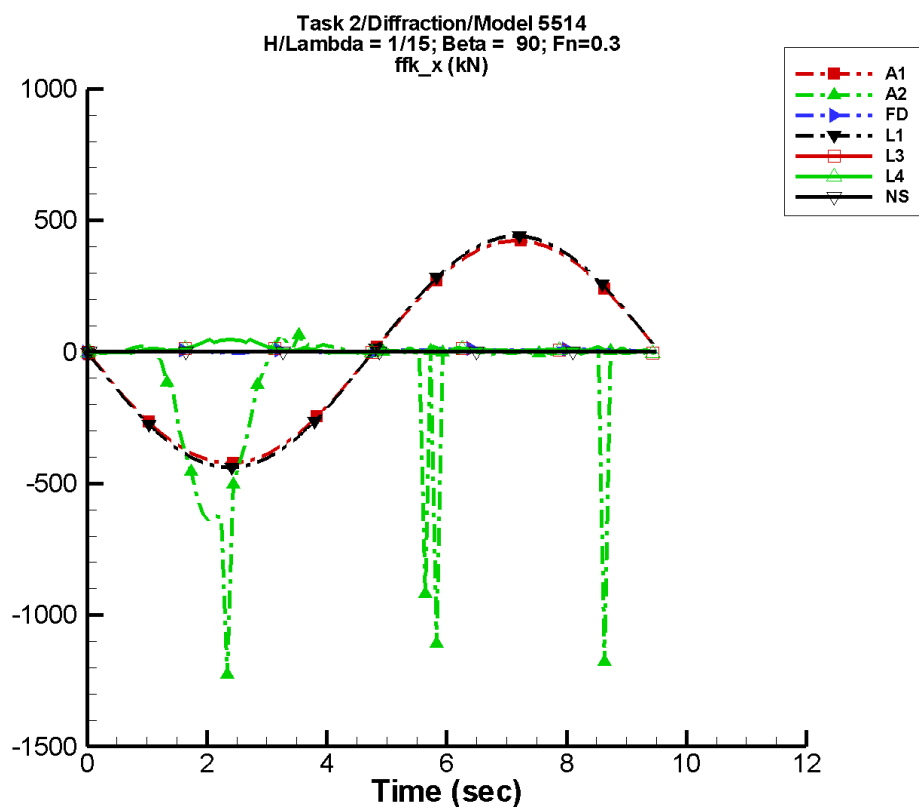
Table H-1099. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.231	318.	175	0.360	152
A2	-59.1	97.5	2	18.4	135
FD	4.16	4.60	175	3.09	-101
L1	-0.145	330.	176	0.260	-151
L3	4.12	5.08	177	3.99	-96
L4	4.12	5.08	177	3.99	-96
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1100. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-317.	317.	-314.	314.
A2	-942.	40.3	-440.	30.8
FD	-0.207	13.4	3.71E-03	10.8
L1	-330.	330.	-328.	328.
L3	-3.34	13.2	-3.01	12.9
L4	-3.34	13.2	-3.01	12.9
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-551. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

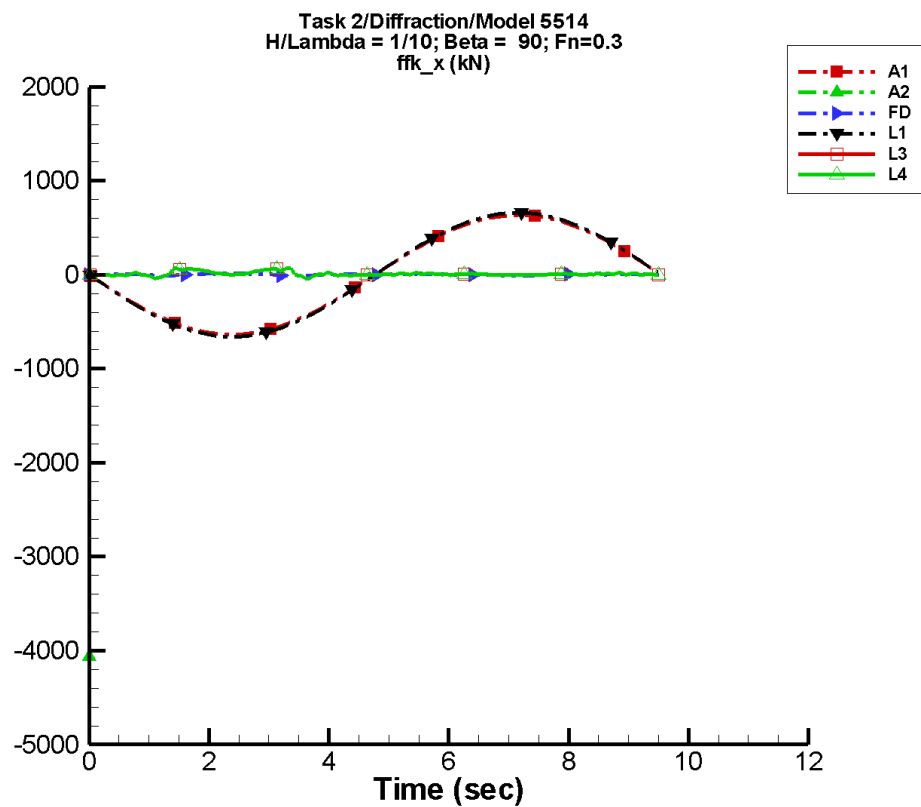
Table H-1101. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.307	423.	175	0.480	152
A2	-99.0	95.7	173	136.	101
FD	4.34	3.84	177	1.09	-103
L1	-0.193	439.	176	0.347	-151
L3	9.70	8.13	-12	12.1	-92
L4	9.70	8.13	-12	12.1	-92
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1102. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-423.	423.	-418.	418.
A2	-1.23E+03	66.7	-650.	39.1
FD	-4.75	14.6	-2.62	10.0
L1	-439.	439.	-438.	438.
L3	-3.27	47.0	-2.11	44.7
L4	-3.27	47.0	-2.11	44.7
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-552. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

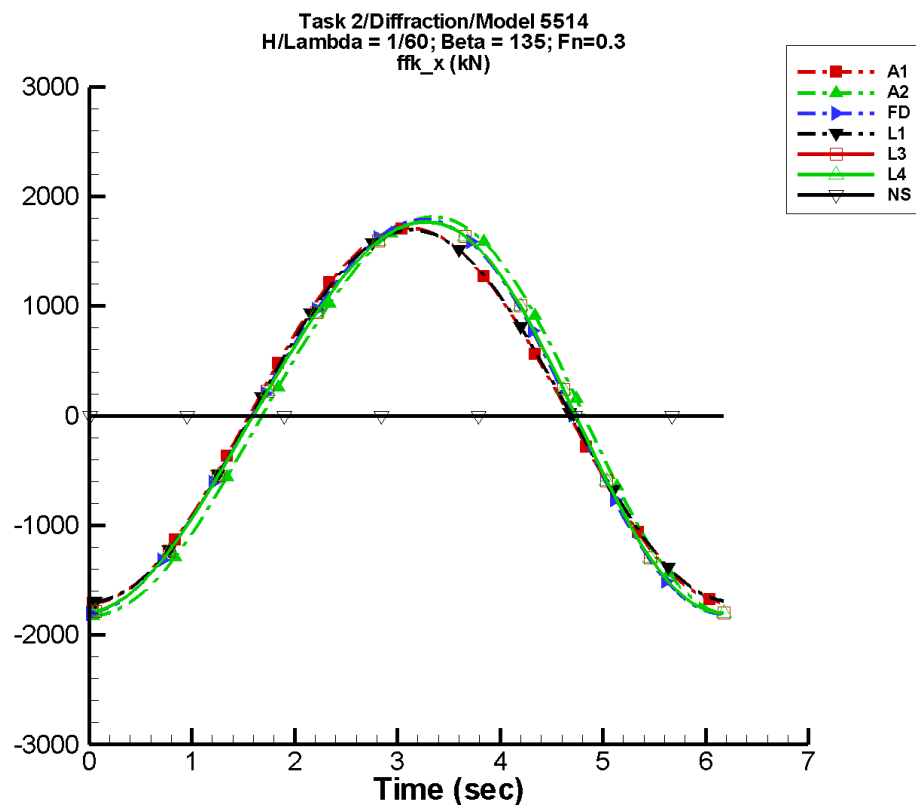
Table H-1103. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.462	635.	175	0.721	152
A2	2.96E+03	9.10E+03	109	6.74E+03	143
FD	2.36	1.02	8	0.839	-104
L1	-0.289	659.	176	0.521	-151
L3	8.38	10.8	-11	10.2	-90
L4	8.38	10.8	-11	10.2	-90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1104. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-635.	635.	-628.	628.
A2	-4.12E+03	-4.07E+03	-4.12E+03	-4.07E+03
FD	-13.7	17.0	-5.98	13.9
L1	-659.	659.	-656.	657.
L3	-42.0	75.3	-13.1	56.3
L4	-42.0	75.3	-13.1	56.3
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-553. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1105. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

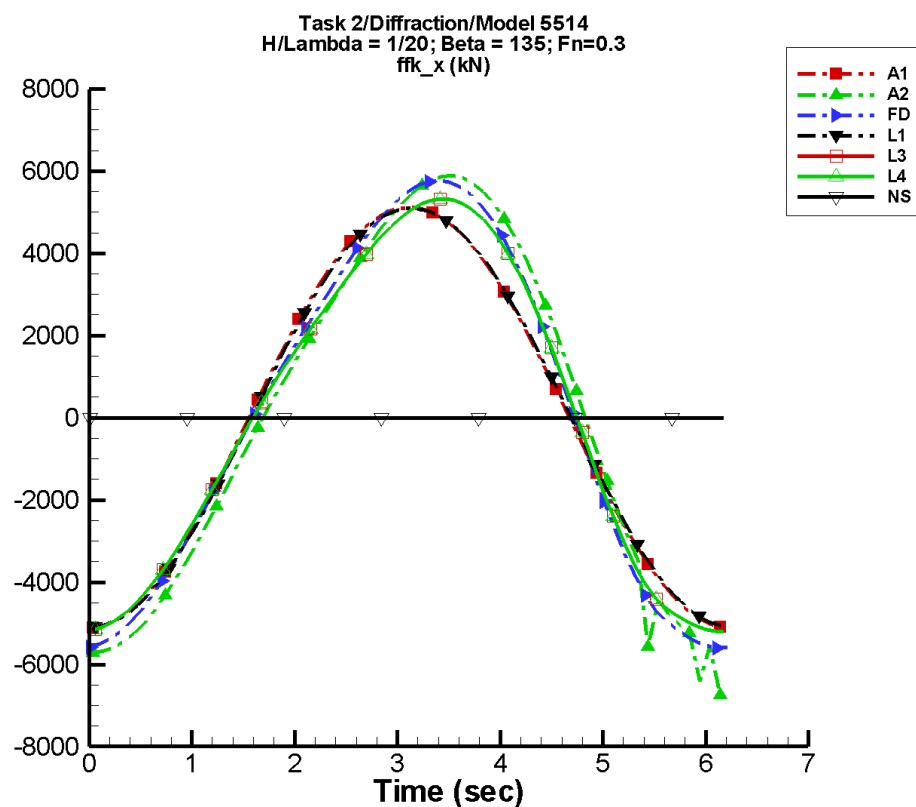
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.39	1.71E+03	-97	3.24	-155
A2	5.52	1.81E+03	-105	87.9	-38
FD	1.69	1.79E+03	-114	90.6	-57
L1	1.90	1.70E+03	-101	2.25	-141
L3	2.75	1.78E+03	-103	95.6	-38
L4	2.75	1.78E+03	-103	95.6	-38
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1106. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.71E+03	1.71E+03	-1.69E+03	1.67E+03
A2	-1.82E+03	1.81E+03	-1.81E+03	1.76E+03
FD	-1.81E+03	1.79E+03	-1.79E+03	1.74E+03
L1	-1.70E+03	1.70E+03	-1.69E+03	1.68E+03
L3	-1.80E+03	1.77E+03	-1.78E+03	1.75E+03
L4	-1.80E+03	1.77E+03	-1.78E+03	1.75E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-554. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

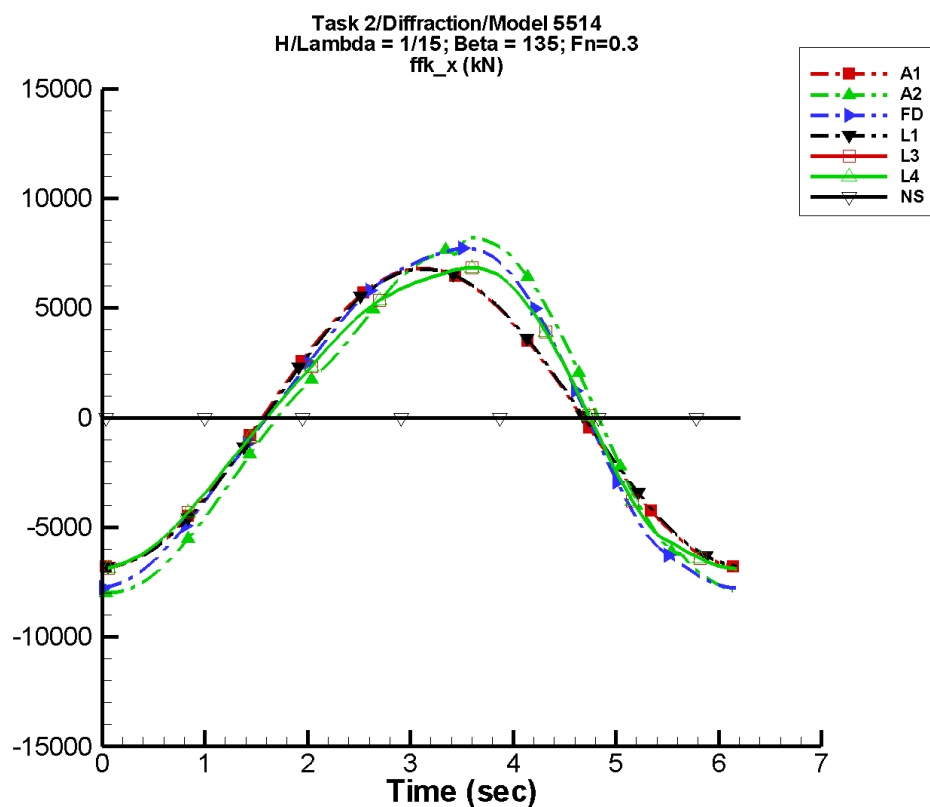
Table H-1107. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	7.15	5.12E+03	-97	9.69	-155
A2	-46.5	5.81E+03	-106	705.	-34
FD	7.99	5.64E+03	-116	633.	-53
L1	5.69	5.09E+03	-101	6.75	-141
L3	3.89	5.23E+03	-104	617.	-32
L4	3.89	5.23E+03	-104	617.	-32
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1108. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.12E+03	5.12E+03	-5.07E+03	4.98E+03
A2	-6.73E+03	5.88E+03	-5.80E+03	5.70E+03
FD	-5.60E+03	5.77E+03	-5.52E+03	5.61E+03
L1	-5.09E+03	5.09E+03	-5.07E+03	5.04E+03
L3	-5.20E+03	5.32E+03	-5.15E+03	5.26E+03
L4	-5.20E+03	5.32E+03	-5.15E+03	5.26E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-555. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

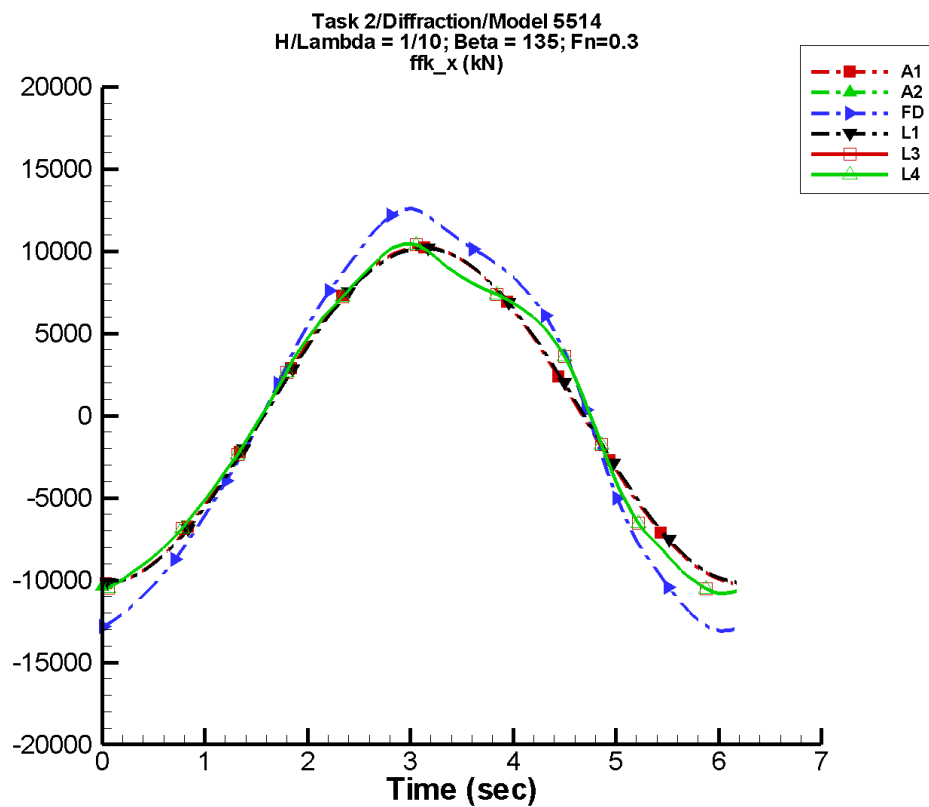
Table H-1109. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.52	6.81E+03	-97	12.9	-155
A2	-78.0	7.88E+03	-108	1.02E+03	-37
FD	16.3	7.76E+03	-116	877.	-59
L1	7.58	6.78E+03	-101	9.00	-141
L3	9.43	6.90E+03	-104	816.	-37
L4	9.43	6.90E+03	-104	816.	-37
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1110. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.81E+03	6.81E+03	-6.75E+03	6.64E+03
A2	-8.00E+03	8.20E+03	-7.97E+03	7.81E+03
FD	-7.76E+03	7.73E+03	-7.67E+03	7.53E+03
L1	-6.78E+03	6.78E+03	-6.75E+03	6.72E+03
L3	-6.89E+03	6.84E+03	-6.81E+03	6.76E+03
L4	-6.89E+03	6.84E+03	-6.81E+03	6.76E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-556. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

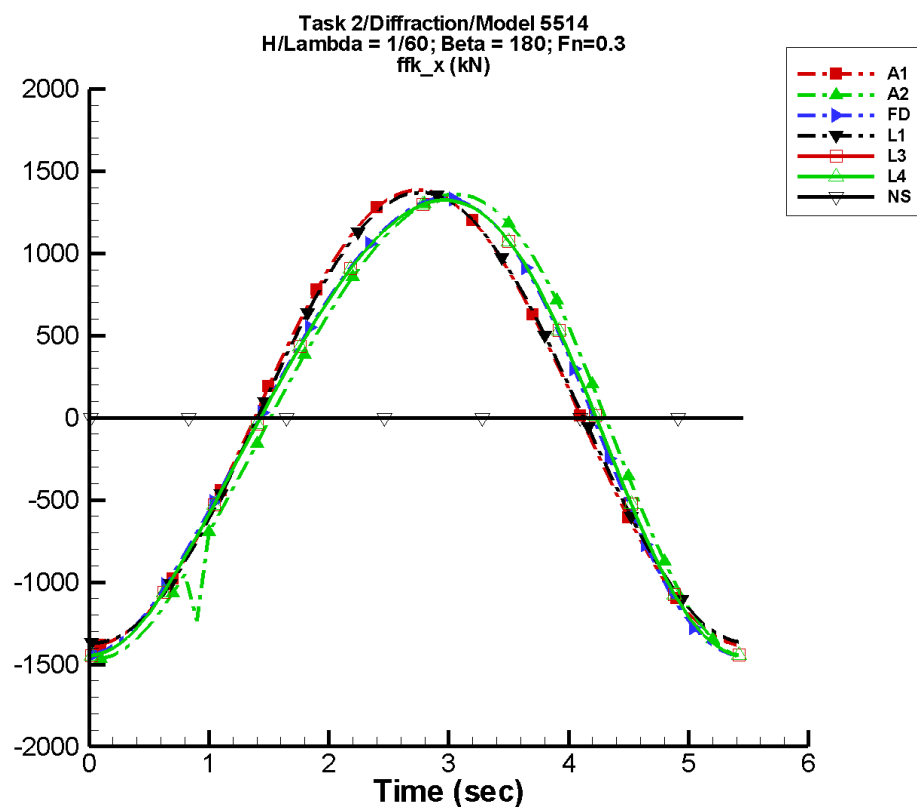
Table H-1111. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	14.3	1.02E+04	-97	19.4	-155
A2	-1.34E+04	1.31E+04	78	1.17E+04	-73
FD	64.9	1.26E+04	-112	624.	-86
L1	11.4	1.02E+04	-101	13.5	-141
L3	49.1	1.04E+04	-99	570.	-65
L4	49.1	1.04E+04	-99	570.	-65
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1112. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.02E+04	1.02E+04	-1.01E+04	9.97E+03
A2	-1.04E+04	-9.26E+03	-1.04E+04	-9.26E+03
FD	-1.31E+04	1.26E+04	-1.26E+04	1.20E+04
L1	-1.02E+04	1.02E+04	-1.01E+04	1.01E+04
L3	-1.08E+04	1.05E+04	-1.07E+04	1.02E+04
L4	-1.08E+04	1.05E+04	-1.07E+04	1.02E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-557. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1113. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

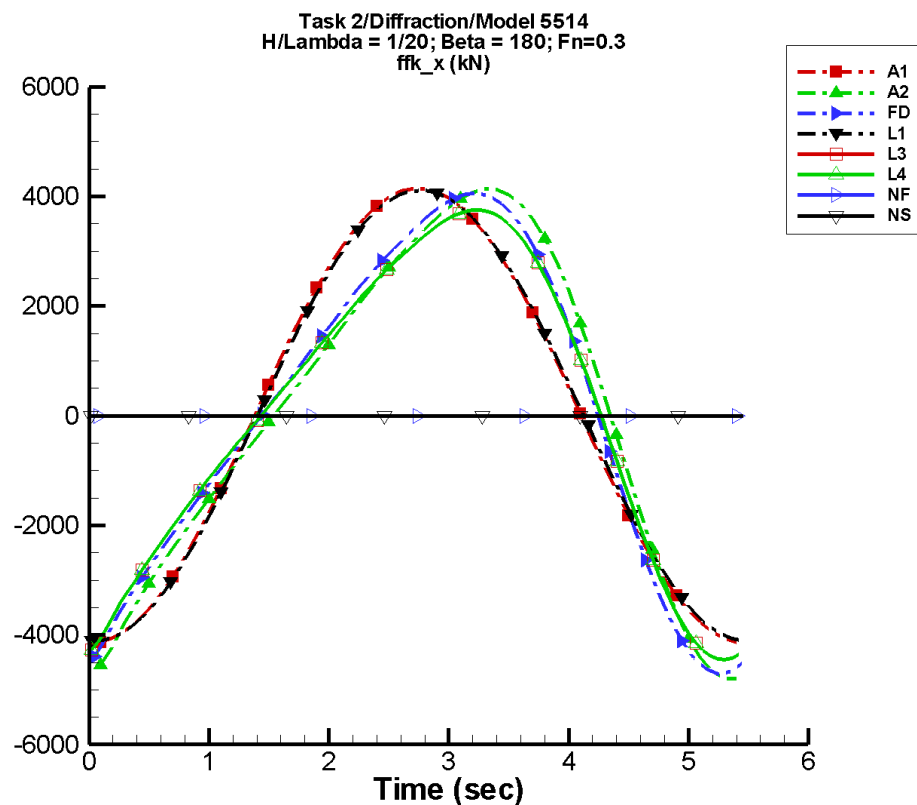
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.24	1.39E+03	-84	2.78	68
A2	-4.24	1.40E+03	-96	113.	-37
FD	-4.53	1.38E+03	-4	118.	147
L1	-2.44	1.37E+03	-70	3.33	-179
L3	-1.71	1.37E+03	-74	112.	0
L4	-1.71	1.37E+03	-74	112.	0
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1114. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.39E+03	1.39E+03	-1.35E+03	1.34E+03
A2	-1.47E+03	1.36E+03	-1.44E+03	1.31E+03
FD	-1.44E+03	1.33E+03	-1.40E+03	1.29E+03
L1	-1.37E+03	1.37E+03	-1.37E+03	1.35E+03
L3	-1.44E+03	1.32E+03	-1.44E+03	1.31E+03
L4	-1.44E+03	1.32E+03	-1.44E+03	1.31E+03
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-558. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

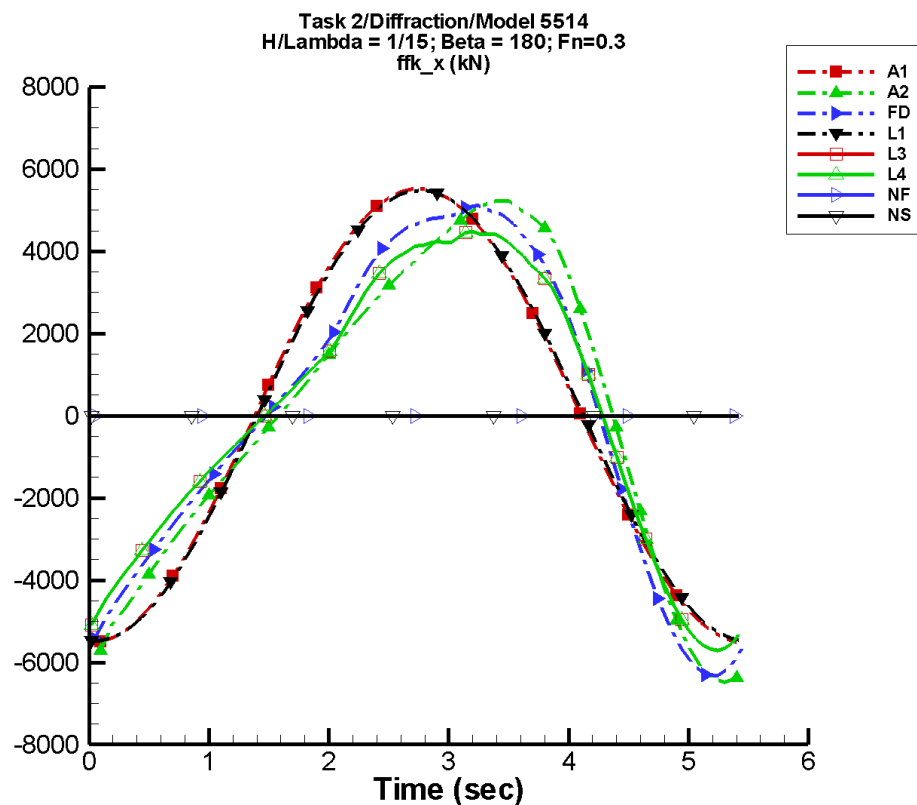
Table H-1115. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.70	4.15E+03	-84	8.31	68
A2	9.18	4.00E+03	-97	1.04E+03	-25
FD	-10.7	3.99E+03	-5	951.	157
L1	-7.32	4.11E+03	-70	9.99	-179
L3	5.64	3.69E+03	-75	877.	13
L4	5.64	3.69E+03	-75	877.	13
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1116. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.15E+03	4.14E+03	-4.04E+03	4.00E+03
A2	-4.80E+03	4.13E+03	-4.46E+03	3.96E+03
FD	-4.71E+03	4.06E+03	-4.60E+03	3.89E+03
L1	-4.11E+03	4.11E+03	-4.11E+03	4.06E+03
L3	-4.46E+03	3.76E+03	-4.34E+03	3.70E+03
L4	-4.46E+03	3.76E+03	-4.34E+03	3.70E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-559. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

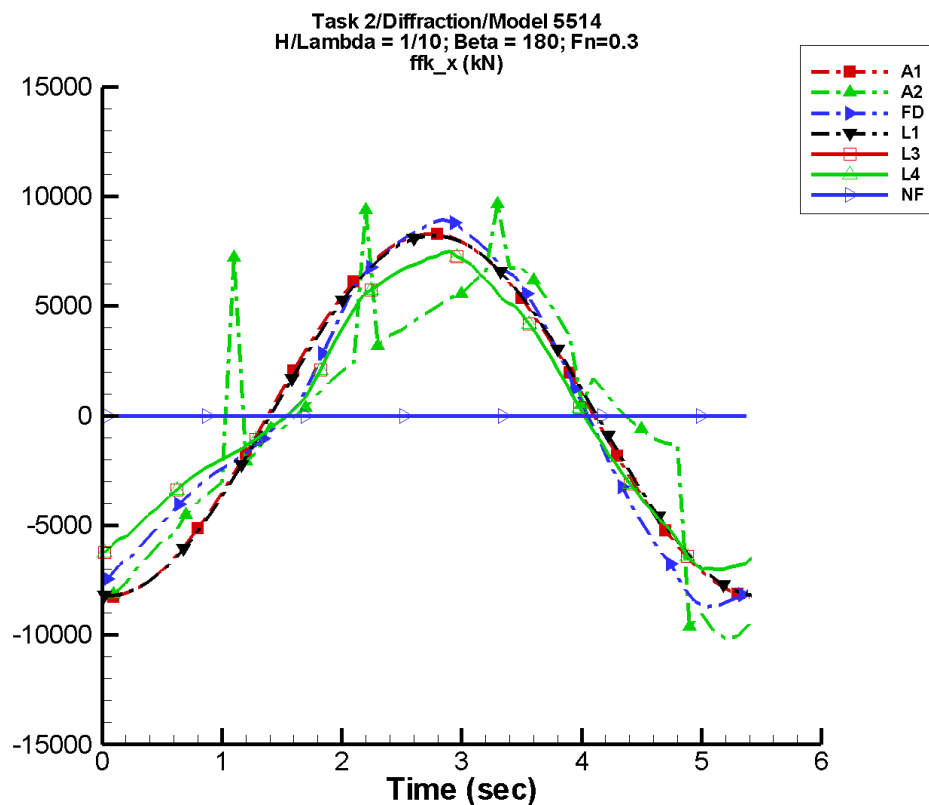
Table H-1117. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.92	5.53E+03	-84	11.1	68
A2	-42.2	5.05E+03	-98	1.55E+03	-27
FD	-15.3	5.18E+03	-5	1.31E+03	160
L1	-9.76	5.48E+03	-70	13.3	-179
L3	29.0	4.52E+03	-75	1.11E+03	17
L4	29.0	4.52E+03	-75	1.11E+03	17
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1118. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.52E+03	5.52E+03	-5.39E+03	5.33E+03
A2	-6.49E+03	5.23E+03	-5.92E+03	4.99E+03
FD	-6.33E+03	5.12E+03	-6.17E+03	4.93E+03
L1	-5.48E+03	5.48E+03	-5.49E+03	5.41E+03
L3	-5.71E+03	4.46E+03	-5.51E+03	4.38E+03
L4	-5.71E+03	4.46E+03	-5.51E+03	4.38E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-560. Time history of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

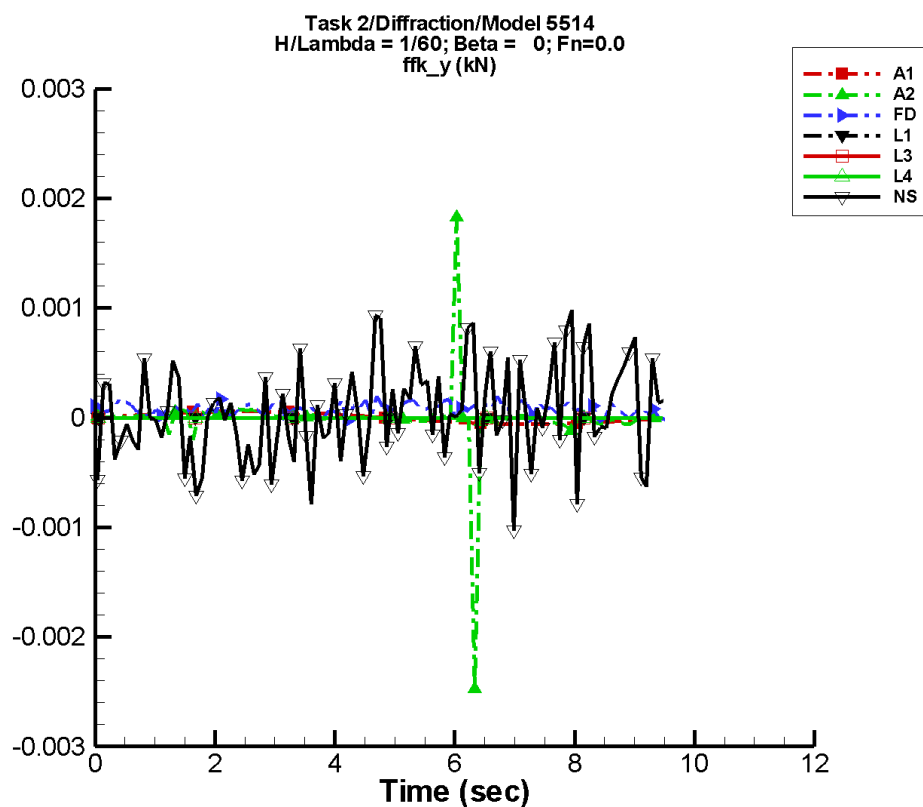
Table H-1119. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-13.4	8.30E+03	-84	16.6	68
A2	-153.	6.93E+03	-93	1.97E+03	-39
FD	-22.4	8.10E+03	3	1.39E+03	-150
L1	-14.6	8.22E+03	-70	20.0	-179
L3	5.81	6.57E+03	-65	1.09E+03	80
L4	5.81	6.57E+03	-65	1.09E+03	80
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1120. Minimum and maximum of  $F_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.29E+03	8.29E+03	-8.09E+03	8.01E+03
A2	-1.02E+04	9.68E+03	-9.01E+03	6.61E+03
FD	-8.72E+03	8.92E+03	-8.41E+03	8.41E+03
L1	-8.22E+03	8.22E+03	-8.23E+03	8.12E+03
L3	-7.00E+03	7.51E+03	-6.88E+03	7.19E+03
L4	-7.00E+03	7.51E+03	-6.88E+03	7.19E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-561. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1121. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

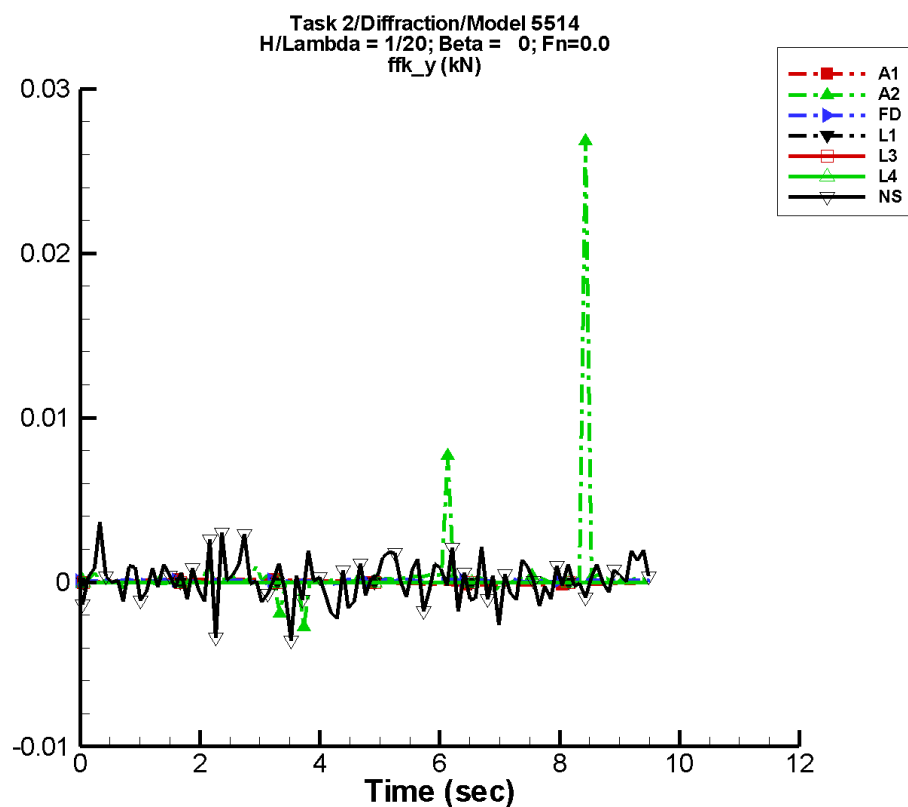
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.97E-08	5.82E-05	-8	6.41E-08	-31
A2	-9.65E-06	4.21E-05	-11	1.27E-05	68
FD	7.75E-05	2.23E-05	-132	1.36E-05	-43
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	6.48E-05	1.51E-04	179	7.27E-05	74

Table H-1122. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.82E-05	5.82E-05	-5.76E-05	5.76E-05
A2	-2.47E-03	1.83E-03	-2.28E-04	1.25E-04
FD	-3.60E-05	1.98E-04	3.42E-05	1.13E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.03E-03	9.80E-04	-3.10E-04	3.02E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-562. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

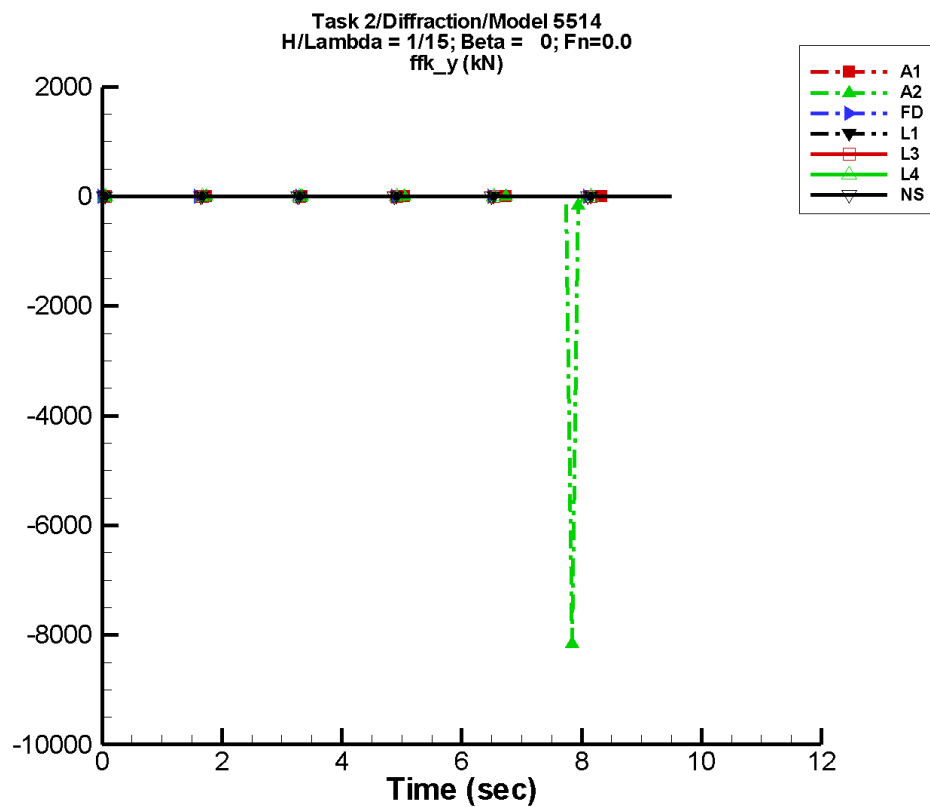
Table H-1123. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.19E-07	1.74E-04	-8	1.92E-07	-31
A2	4.36E-04	6.45E-04	147	3.02E-04	172
FD	8.38E-05	1.37E-05	134	2.69E-05	-19
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.47E-05	1.85E-04	108	2.30E-04	62

Table H-1124. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.74E-04	1.74E-04	-1.72E-04	1.72E-04
A2	-2.72E-03	2.68E-02	-4.55E-04	3.73E-03
FD	-9.38E-05	2.54E-04	1.25E-05	1.40E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.56E-03	3.67E-03	-9.50E-04	8.37E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-563. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

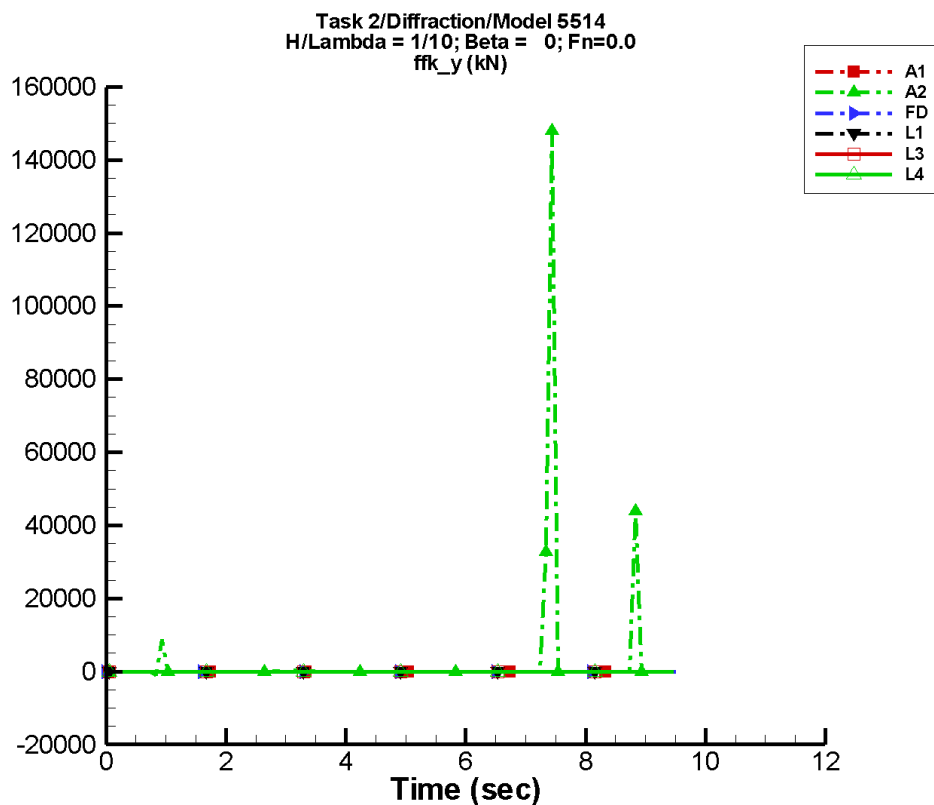
Table H-1125. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.58E-07	2.32E-04	-8	2.56E-07	-31
A2	-94.3	170.	-35	164.	32
FD	6.81E-05	2.30E-05	108	1.39E-05	172
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.10E-05	2.45E-04	134	1.52E-04	15

Table H-1126. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.32E-04	2.32E-04	-2.29E-04	2.29E-04
A2	-8.16E+03	4.54	-1.11E+03	94.8
FD	-1.07E-04	2.36E-04	7.10E-06	1.16E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.95E-03	7.64E-03	-1.53E-03	1.90E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-564. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

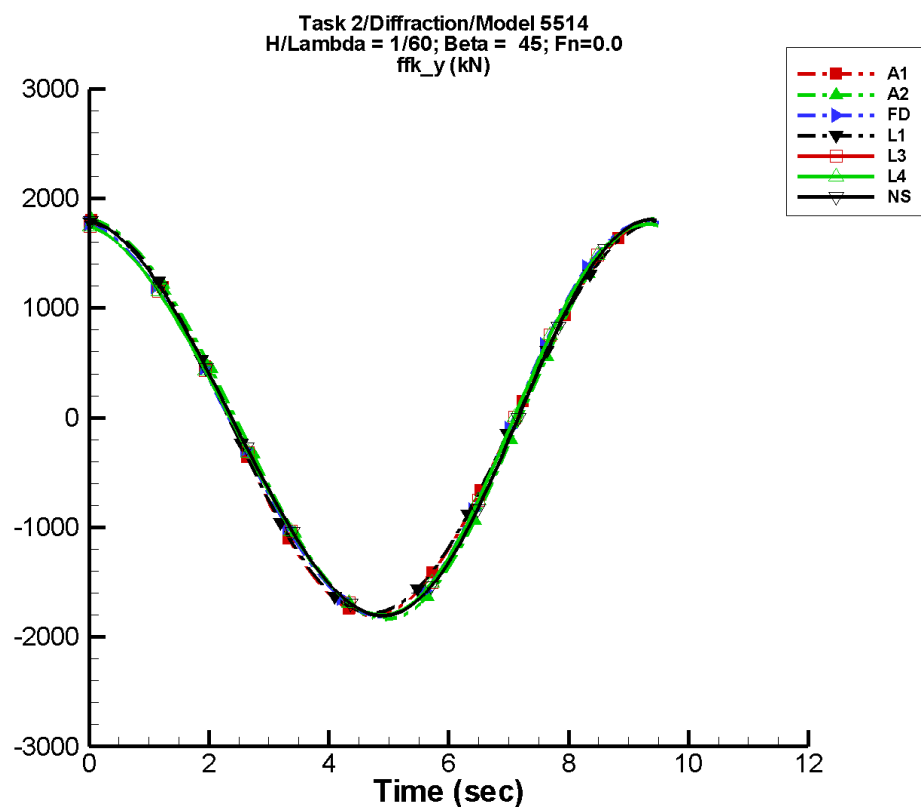
Table H-1127. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.37E-07	3.48E-04	-8	3.84E-07	-31
A2	2.53E+03	4.27E+03	151	3.39E+03	-129
FD	4.96E-05	3.61E-05	105	1.25E-05	-160
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1128. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.48E-04	3.48E-04	-3.45E-04	3.44E-04
A2	-1.16E+03	1.48E+05	-1.91E+03	2.41E+04
FD	-2.03E-04	2.61E-04	-1.77E-05	1.29E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-565. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1129. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

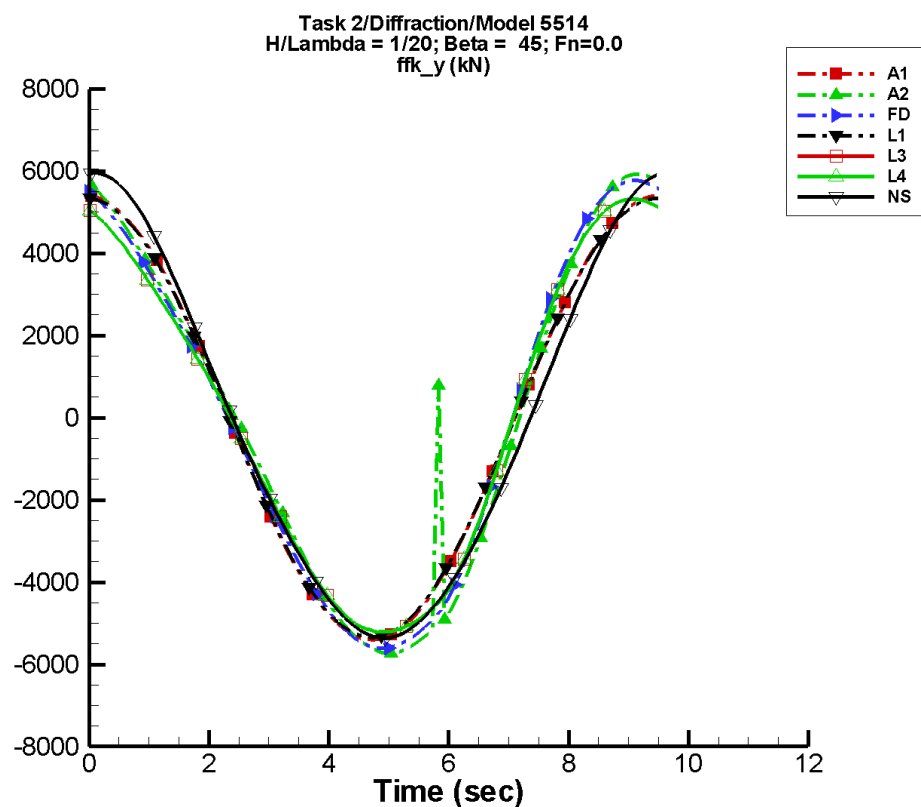
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.74	1.80E+03	87	2.39	30
A2	-1.00	1.82E+03	83	71.0	174
FD	-8.38E-02	1.79E+03	87	89.4	-178
L1	-1.04	1.78E+03	88	1.37	43
L3	-1.01	1.78E+03	88	95.3	-172
L4	-1.01	1.78E+03	88	95.3	-172
NF	—	—	—	—	—
NS	-4.85	1.80E+03	90	79.6	177

Table H-1130. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.78E+03	1.80E+03
A2	-1.84E+03	1.81E+03	-1.81E+03	1.80E+03
FD	-1.81E+03	1.79E+03	-1.79E+03	1.77E+03
L1	-1.78E+03	1.78E+03	-1.77E+03	1.78E+03
L3	-1.80E+03	1.76E+03	-1.79E+03	1.76E+03
L4	-1.80E+03	1.76E+03	-1.79E+03	1.76E+03
NF	—	—	—	—
NS	-1.80E+03	1.81E+03	-1.79E+03	1.79E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-566. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

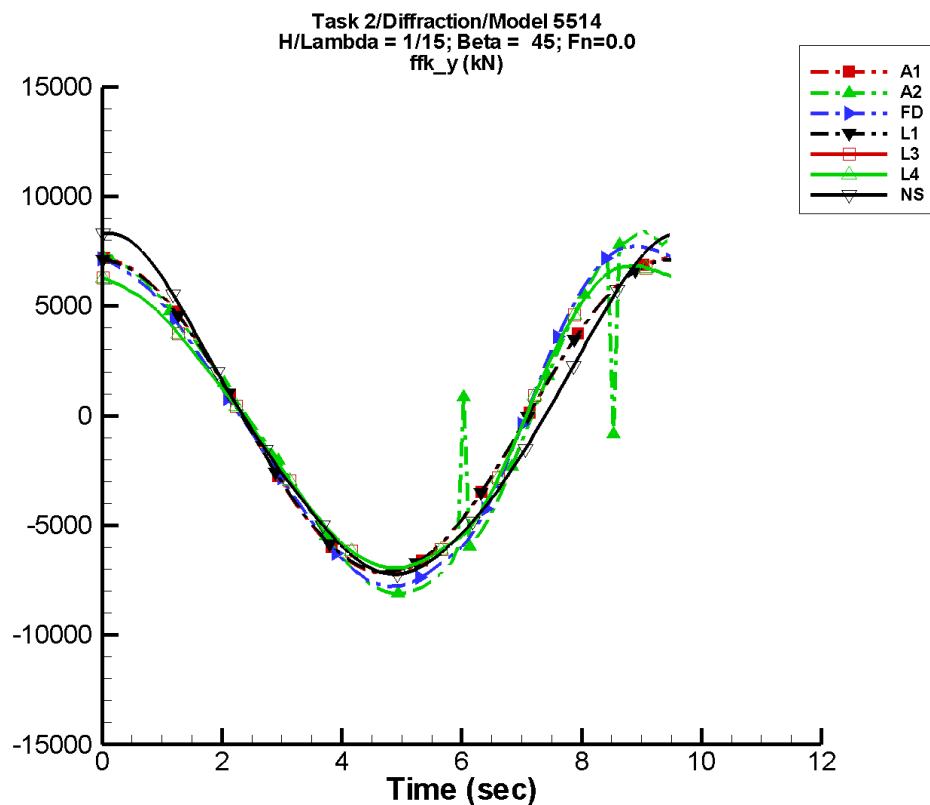
Table H-1131. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.20	5.40E+03	87	7.15	30
A2	45.9	5.58E+03	86	625.	168
FD	-7.49	5.64E+03	88	625.	178
L1	-3.13	5.34E+03	88	4.12	43
L3	-6.40	5.23E+03	89	626.	-178
L4	-6.40	5.23E+03	89	626.	-178
NF	—	—	—	—	—
NS	-29.0	5.55E+03	86	357.	94

Table H-1132. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.39E+03	-5.34E+03	5.37E+03
A2	-5.74E+03	5.93E+03	-5.72E+03	5.84E+03
FD	-5.61E+03	5.77E+03	-5.55E+03	5.70E+03
L1	-5.34E+03	5.34E+03	-5.32E+03	5.33E+03
L3	-5.21E+03	5.32E+03	-5.19E+03	5.30E+03
L4	-5.21E+03	5.32E+03	-5.19E+03	5.30E+03
NF	—	—	—	—
NS	-5.36E+03	5.95E+03	-5.30E+03	5.97E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-567. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

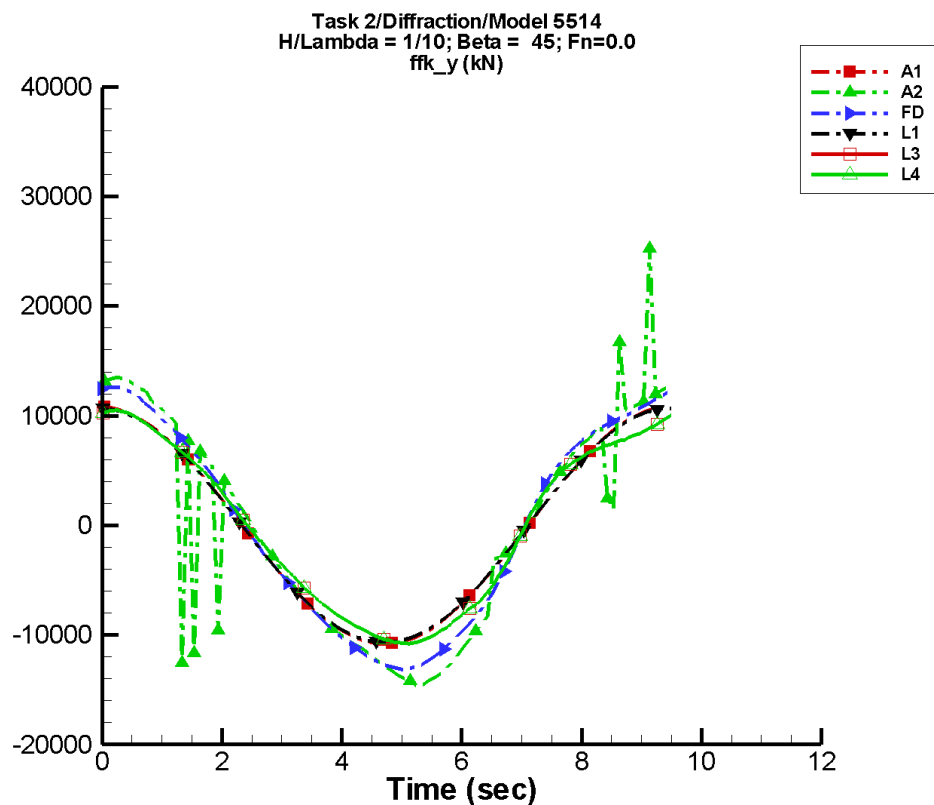
Table H-1133. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.93	7.19E+03	87	9.52	30
A2	6.53	7.73E+03	85	660.	-170
FD	-8.24	7.76E+03	88	845.	-177
L1	-4.18	7.12E+03	88	5.49	43
L3	-2.74	6.91E+03	89	823.	-171
L4	-2.74	6.91E+03	89	823.	-171
NF	—	—	—	—	—
NS	-28.1	7.49E+03	86	635.	89

Table H-1134. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.18E+03	-7.11E+03	7.15E+03
A2	-8.11E+03	1.00E+04	-8.08E+03	7.96E+03
FD	-7.77E+03	7.72E+03	-7.68E+03	7.63E+03
L1	-7.12E+03	7.12E+03	-7.09E+03	7.11E+03
L3	-6.94E+03	6.85E+03	-6.92E+03	6.81E+03
L4	-6.94E+03	6.85E+03	-6.92E+03	6.81E+03
NF	—	—	—	—
NS	-7.23E+03	8.33E+03	-7.19E+03	8.36E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-568. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

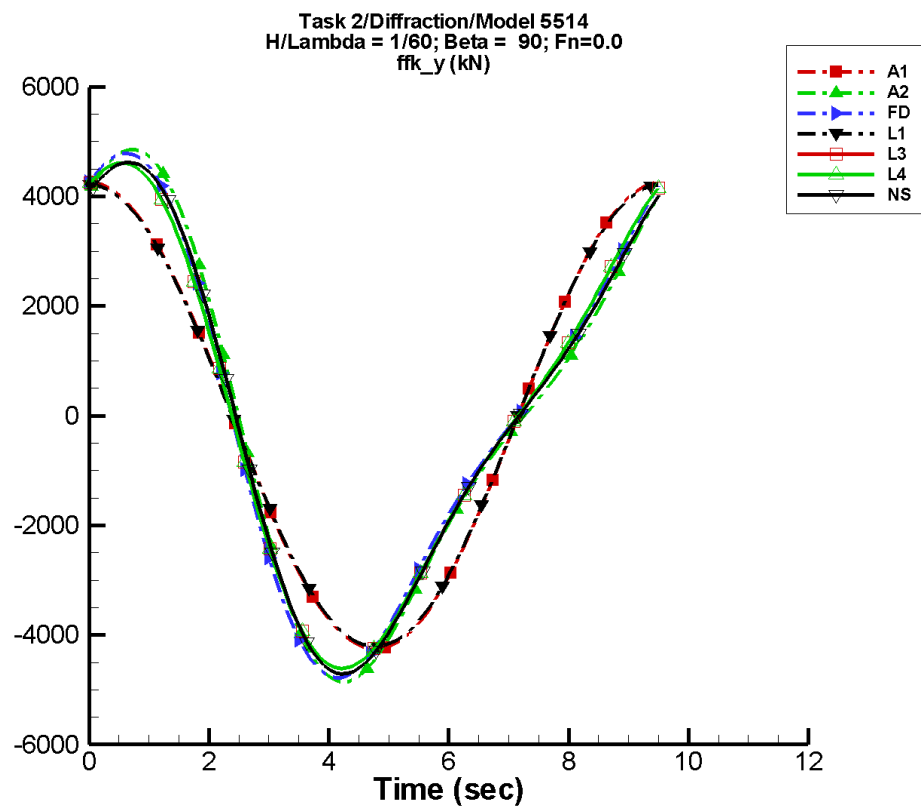
Table H-1135. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-10.4	1.08E+04	87	14.3	30
A2	-407.	1.30E+04	90	1.93E+03	168
FD	38.7	1.27E+04	84	593.	-165
L1	-6.27	1.07E+04	88	8.24	43
L3	34.7	1.05E+04	85	515.	-144
L4	34.7	1.05E+04	85	515.	-144
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1136. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.07E+04	1.07E+04
A2	-1.47E+04	2.52E+04	-1.41E+04	1.40E+04
FD	-1.31E+04	1.26E+04	-1.29E+04	1.27E+04
L1	-1.07E+04	1.07E+04	-1.06E+04	1.07E+04
L3	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
L4	-1.08E+04	1.05E+04	-1.07E+04	1.04E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-569. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1137. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

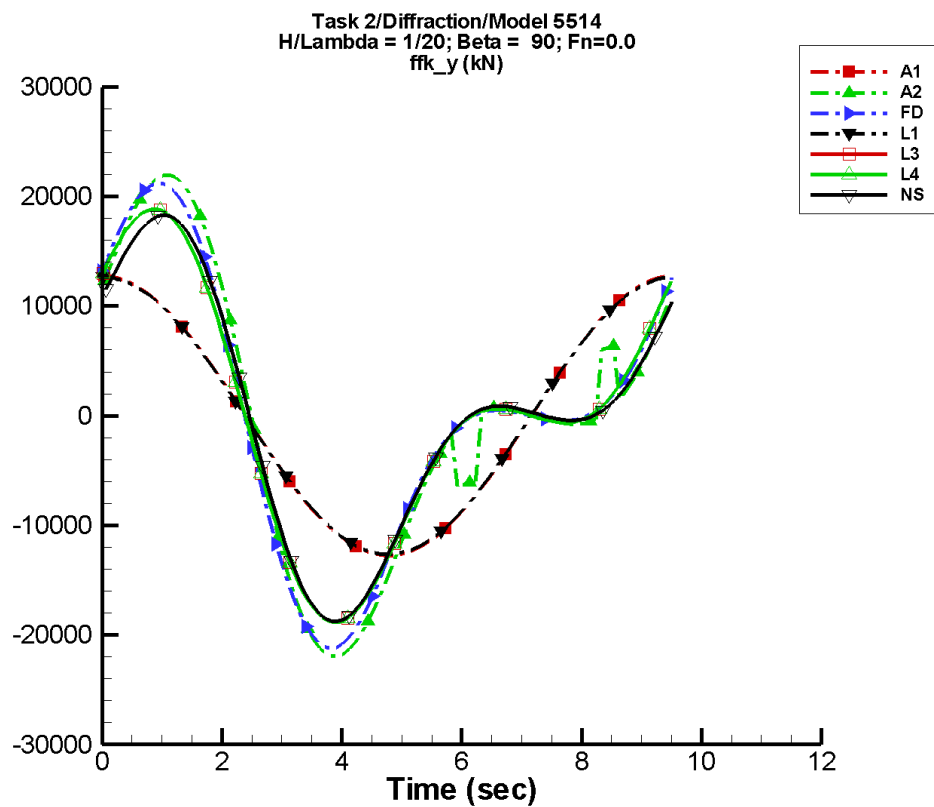
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.22	4.26E+03	85	5.74	28
A2	-3.32	4.32E+03	81	1.24E+03	-18
FD	-0.864	4.28E+03	84	1.19E+03	-11
L1	-2.92	4.21E+03	86	3.12	111
L3	-2.24	4.23E+03	86	992.	-7
L4	-2.24	4.23E+03	86	992.	-7
NF	—	—	—	—	—
NS	-5.71	4.22E+03	88	1.10E+03	-7

Table H-1138. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.26E+03	4.26E+03	-4.21E+03	4.25E+03
A2	-4.86E+03	4.86E+03	-4.77E+03	4.78E+03
FD	-4.79E+03	4.79E+03	-4.82E+03	4.70E+03
L1	-4.21E+03	4.21E+03	-4.20E+03	4.21E+03
L3	-4.61E+03	4.61E+03	-4.58E+03	4.59E+03
L4	-4.61E+03	4.61E+03	-4.58E+03	4.59E+03
NF	—	—	—	—
NS	-4.71E+03	4.62E+03	-4.64E+03	4.55E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-570. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

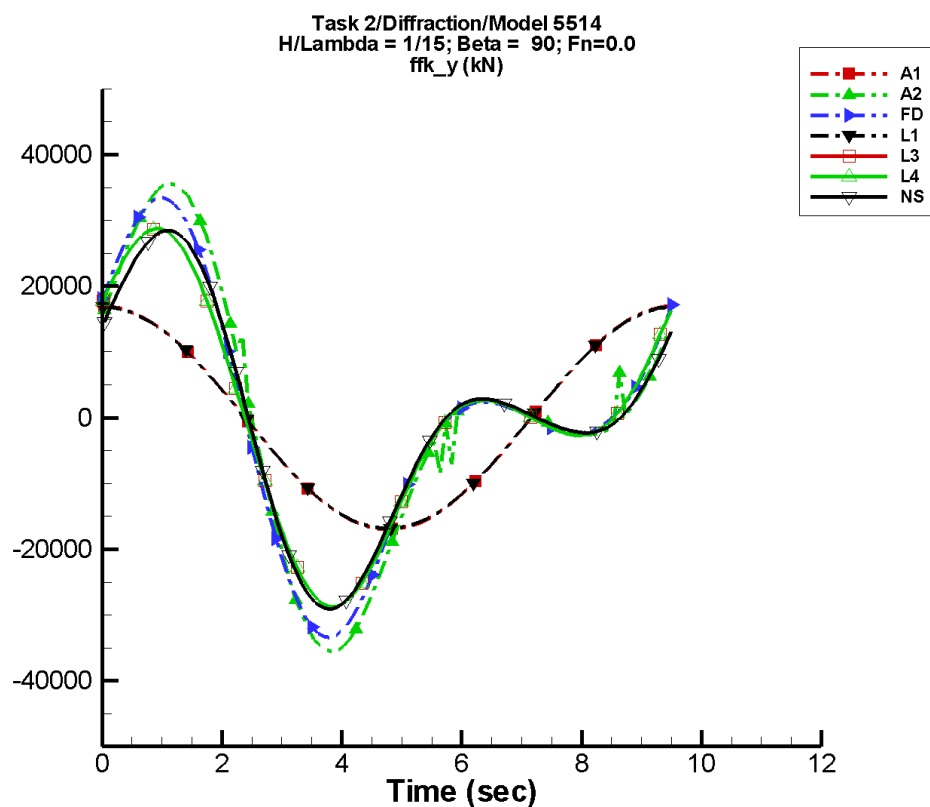
Table H-1139. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.6	1.27E+04	85	17.2	28
A2	-53.4	1.49E+04	80	9.86E+03	-19
FD	-26.8	1.41E+04	84	1.01E+04	-12
L1	-8.76	1.26E+04	86	9.36	111
L3	-0.220	1.31E+04	86	8.51E+03	-7
L4	-0.220	1.31E+04	86	8.51E+03	-7
NF	—	—	—	—	—
NS	-21.2	1.24E+04	88	8.76E+03	-8

Table H-1140. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.27E+04	1.27E+04	-1.26E+04	1.27E+04
A2	-2.19E+04	2.20E+04	-2.13E+04	2.14E+04
FD	-2.12E+04	2.12E+04	-2.07E+04	2.06E+04
L1	-1.26E+04	1.26E+04	-1.26E+04	1.26E+04
L3	-1.88E+04	1.88E+04	-1.87E+04	1.87E+04
L4	-1.88E+04	1.88E+04	-1.87E+04	1.87E+04
NF	—	—	—	—
NS	-1.88E+04	1.83E+04	-1.83E+04	1.79E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-571. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

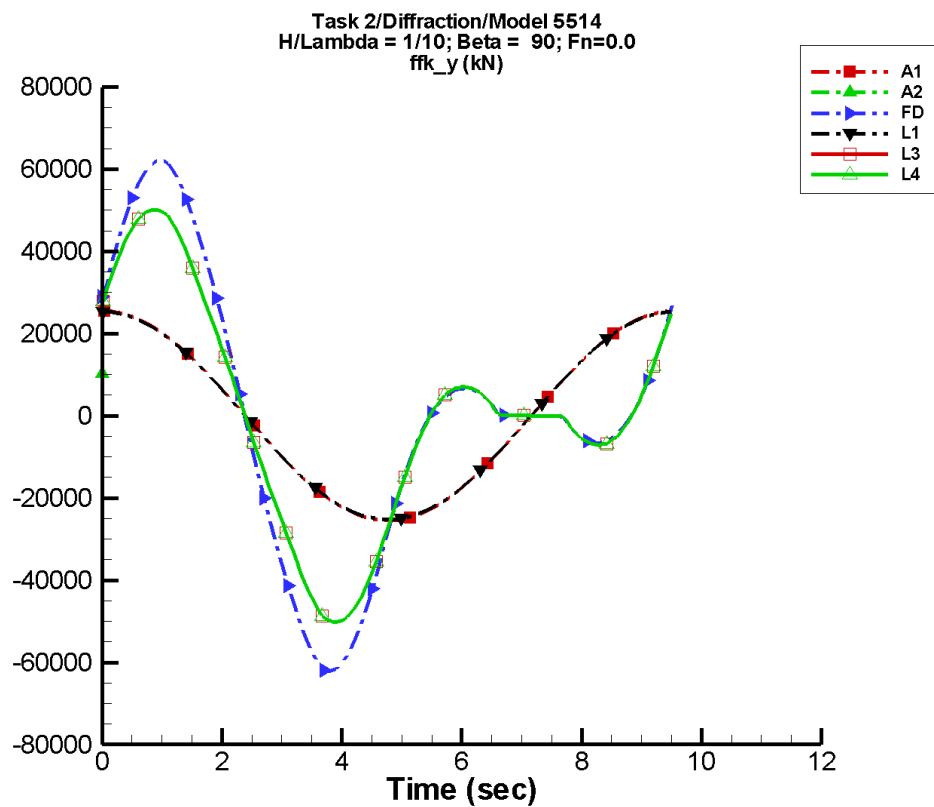
Table H-1141. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-16.8	1.70E+04	85	22.9	28
A2	-0.634	2.10E+04	80	1.83E+04	-19
FD	-53.5	2.01E+04	84	1.73E+04	-12
L1	-11.7	1.69E+04	86	12.5	111
L3	13.2	1.79E+04	87	1.44E+04	-7
L4	13.2	1.79E+04	87	1.44E+04	-7
NF	—	—	—	—	—
NS	5.61	1.69E+04	88	1.52E+04	-6

Table H-1142. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.70E+04	1.70E+04	-1.68E+04	1.69E+04
A2	-3.55E+04	3.56E+04	-3.44E+04	3.45E+04
FD	-3.35E+04	3.35E+04	-3.23E+04	3.24E+04
L1	-1.69E+04	1.69E+04	-1.68E+04	1.68E+04
L3	-2.88E+04	2.88E+04	-2.84E+04	2.84E+04
L4	-2.88E+04	2.88E+04	-2.84E+04	2.84E+04
NF	—	—	—	—
NS	-2.91E+04	2.85E+04	-2.86E+04	2.80E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-572. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

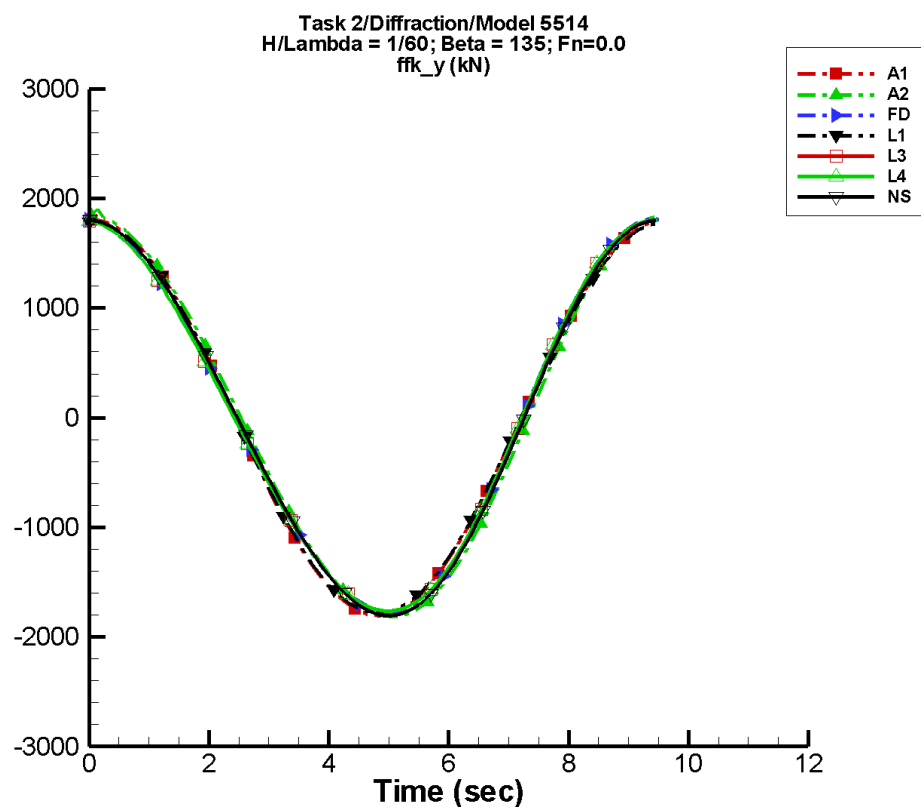
Table H-1143. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-25.2	2.55E+04	85	34.3	28
A2	3.03E+04	8.20E+04	-102	8.05E+04	4
FD	-64.8	3.37E+04	84	3.31E+04	-11
L1	-17.5	2.53E+04	86	18.7	111
L3	186.	2.81E+04	87	2.57E+04	-6
L4	186.	2.81E+04	87	2.57E+04	-6
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1144. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.55E+04	2.55E+04	-2.52E+04	2.54E+04
A2	1.01E+04	1.55E+04	1.01E+04	1.55E+04
FD	-6.22E+04	6.22E+04	-5.97E+04	5.96E+04
L1	-2.53E+04	2.53E+04	-2.52E+04	2.53E+04
L3	-5.01E+04	5.01E+04	-4.96E+04	4.96E+04
L4	-5.01E+04	5.01E+04	-4.96E+04	4.96E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-573. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1145. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

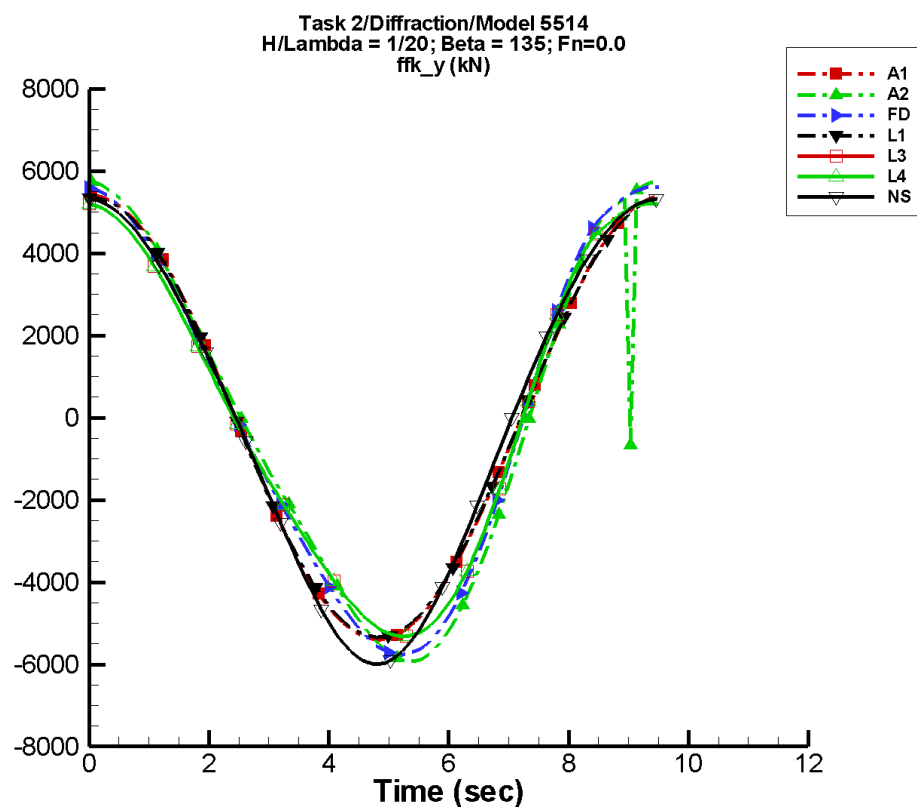
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.83	1.80E+03	83	2.47	27
A2	-1.52	1.82E+03	79	72.4	147
FD	-0.110	1.79E+03	82	89.3	156
L1	-4.25E-03	1.78E+03	84	8.10E-02	173
L3	-0.170	1.78E+03	84	95.8	157
L4	-0.170	1.78E+03	84	95.8	157
NF	—	—	—	—	—
NS	-4.82	1.80E+03	86	79.5	169

Table H-1146. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.78E+03	1.81E+03
A2	-1.81E+03	1.90E+03	-1.79E+03	1.85E+03
FD	-1.79E+03	1.81E+03	-1.77E+03	1.79E+03
L1	-1.78E+03	1.78E+03	-1.77E+03	1.79E+03
L3	-1.76E+03	1.80E+03	-1.76E+03	1.79E+03
L4	-1.76E+03	1.80E+03	-1.76E+03	1.79E+03
NF	—	—	—	—
NS	-1.81E+03	1.80E+03	-1.79E+03	1.80E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-574. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

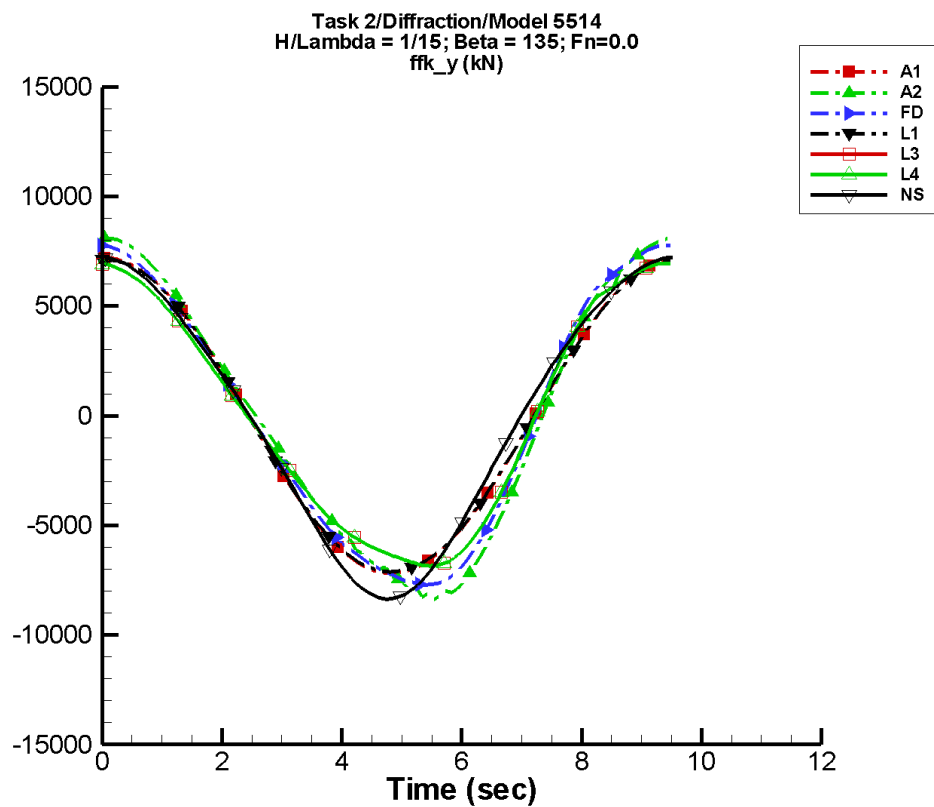
Table H-1147. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.48	5.40E+03	83	7.39	27
A2	-52.0	5.61E+03	77	611.	158
FD	3.99	5.64E+03	81	623.	160
L1	-1.18E-02	5.34E+03	84	0.241	174
L3	4.50	5.24E+03	83	609.	161
L4	4.50	5.24E+03	83	609.	161
NF	—	—	—	—	—
NS	-29.8	5.54E+03	90	305.	-110

Table H-1148. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.40E+03	-5.34E+03	5.40E+03
A2	-5.92E+03	5.74E+03	-5.84E+03	5.71E+03
FD	-5.77E+03	5.61E+03	-5.70E+03	5.55E+03
L1	-5.34E+03	5.34E+03	-5.32E+03	5.37E+03
L3	-5.32E+03	5.21E+03	-5.30E+03	5.20E+03
L4	-5.32E+03	5.21E+03	-5.30E+03	5.20E+03
NF	—	—	—	—
NS	-5.99E+03	5.32E+03	-5.91E+03	5.31E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-575. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

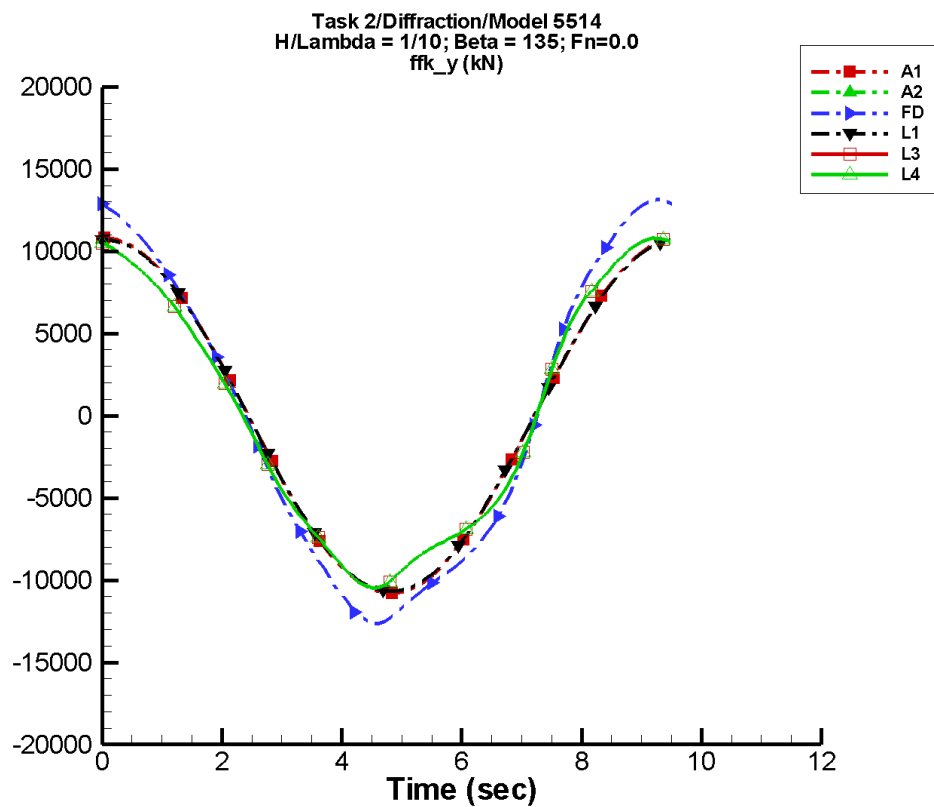
Table H-1149. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-7.29	7.19E+03	83	9.84	27
A2	-3.92	8.00E+03	77	988.	148
FD	-2.50	7.77E+03	81	839.	156
L1	-1.59E-02	7.12E+03	84	0.323	174
L3	-1.67	6.93E+03	83	797.	156
L4	-1.67	6.93E+03	83	797.	156
NF	—	—	—	—	—
NS	-29.6	7.49E+03	91	516.	-102

Table H-1150. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.19E+03	-7.11E+03	7.19E+03
A2	-8.39E+03	8.11E+03	-8.11E+03	8.11E+03
FD	-7.72E+03	7.78E+03	-7.62E+03	7.72E+03
L1	-7.12E+03	7.12E+03	-7.09E+03	7.16E+03
L3	-6.85E+03	6.94E+03	-6.81E+03	6.92E+03
L4	-6.85E+03	6.94E+03	-6.81E+03	6.92E+03
NF	—	—	—	—
NS	-8.37E+03	7.21E+03	-8.29E+03	7.19E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-576. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

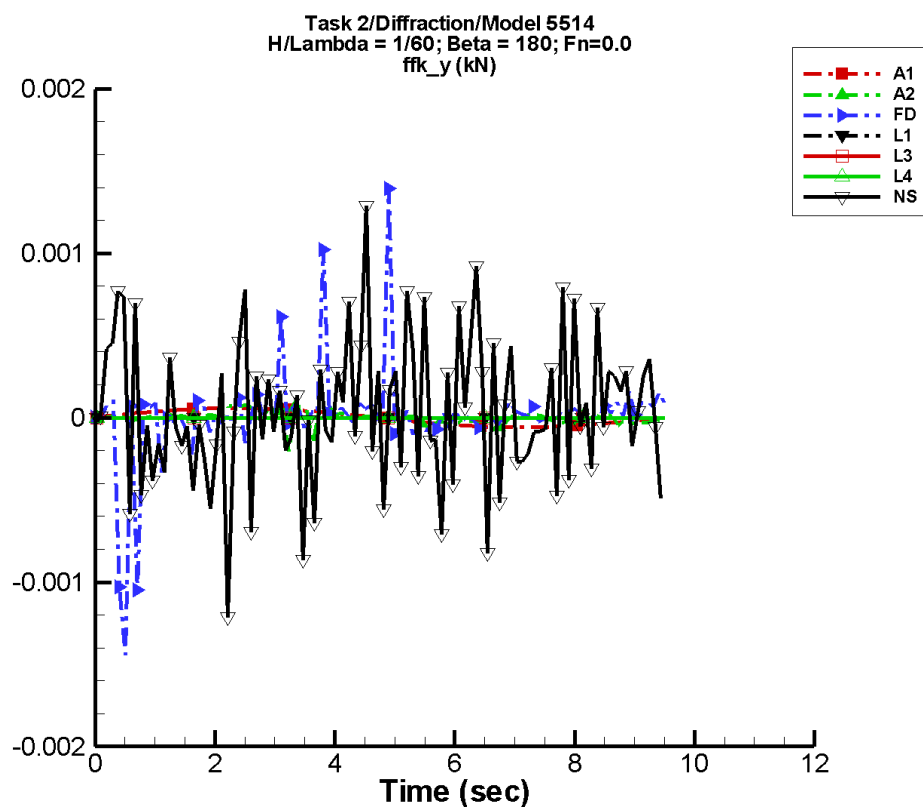
Table H-1151. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-11.0	1.08E+04	83	14.8	27
A2	2.11E+04	1.19E+04	-51	5.92E+03	98
FD	-31.6	1.26E+04	85	608.	141
L1	-2.30E-02	1.07E+04	84	0.482	174
L3	-38.8	1.04E+04	88	475.	137
L4	-38.8	1.04E+04	88	475.	137
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1152. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.07E+04	1.08E+04
A2	1.00E+04	1.07E+04	1.00E+04	1.07E+04
FD	-1.26E+04	1.31E+04	-1.23E+04	1.29E+04
L1	-1.07E+04	1.07E+04	-1.06E+04	1.07E+04
L3	-1.05E+04	1.08E+04	-1.04E+04	1.07E+04
L4	-1.05E+04	1.08E+04	-1.04E+04	1.07E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-577. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1153. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

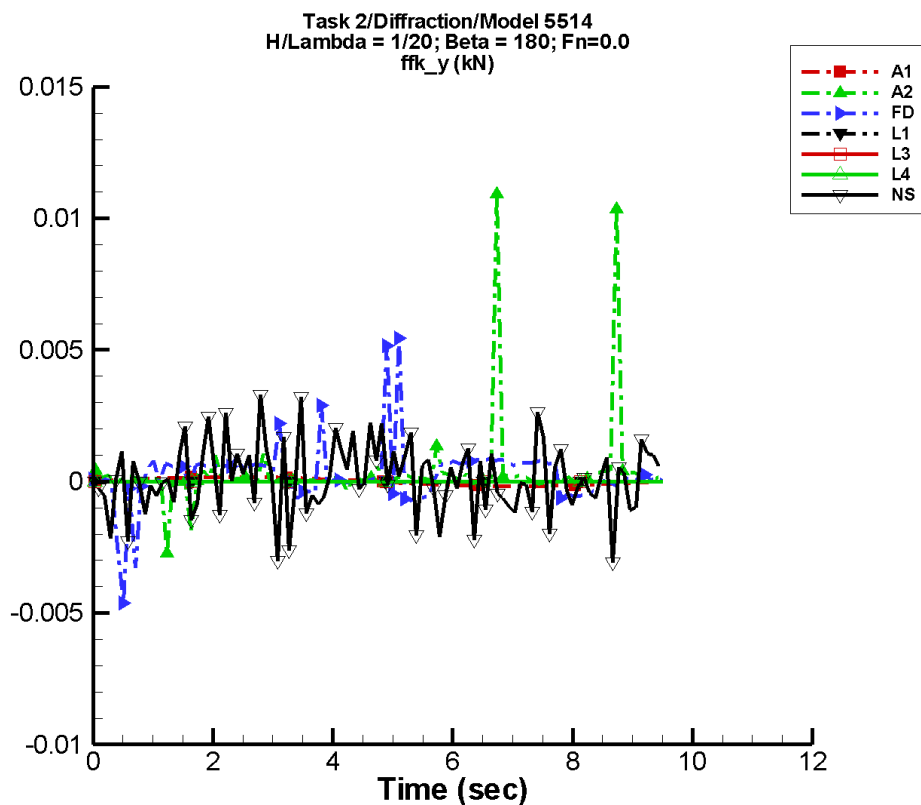
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.49E-08	5.82E-05	-2	6.80E-08	-26
A2	-3.26E-06	2.71E-05	-15	1.96E-05	-137
FD	-1.47E-05	1.08E-04	-115	1.00E-04	-174
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.09E-05	8.55E-05	176	1.52E-04	99

Table H-1154. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.82E-05	5.82E-05	-5.76E-05	5.76E-05
A2	-6.19E-04	8.70E-04	-1.70E-04	5.80E-05
FD	-2.95E-03	1.39E-03	-4.47E-04	1.77E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.21E-03	1.29E-03	-2.58E-04	2.82E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-578. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

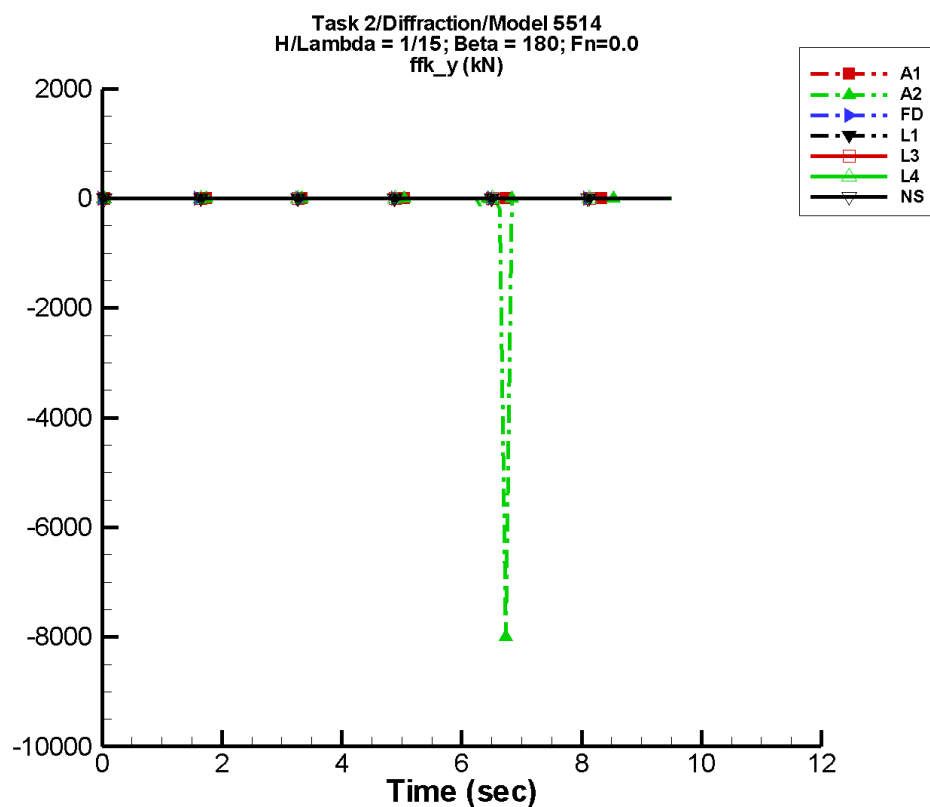
Table H-1155. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.34E-07	1.74E-04	-2	2.03E-07	-26
A2	30.0	64.0	78	73.4	62
FD	1.65E-04	4.84E-04	-109	4.44E-04	-88
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.31E-05	3.48E-04	-61	1.36E-04	147

Table H-1156. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.74E-04	1.74E-04	-1.72E-04	1.72E-04
A2	-2.72E-03	5.09E+03	-58.1	679.
FD	-9.05E-03	5.44E-03	-1.43E-03	1.07E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.01E-03	3.34E-03	-4.83E-04	9.98E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-579. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

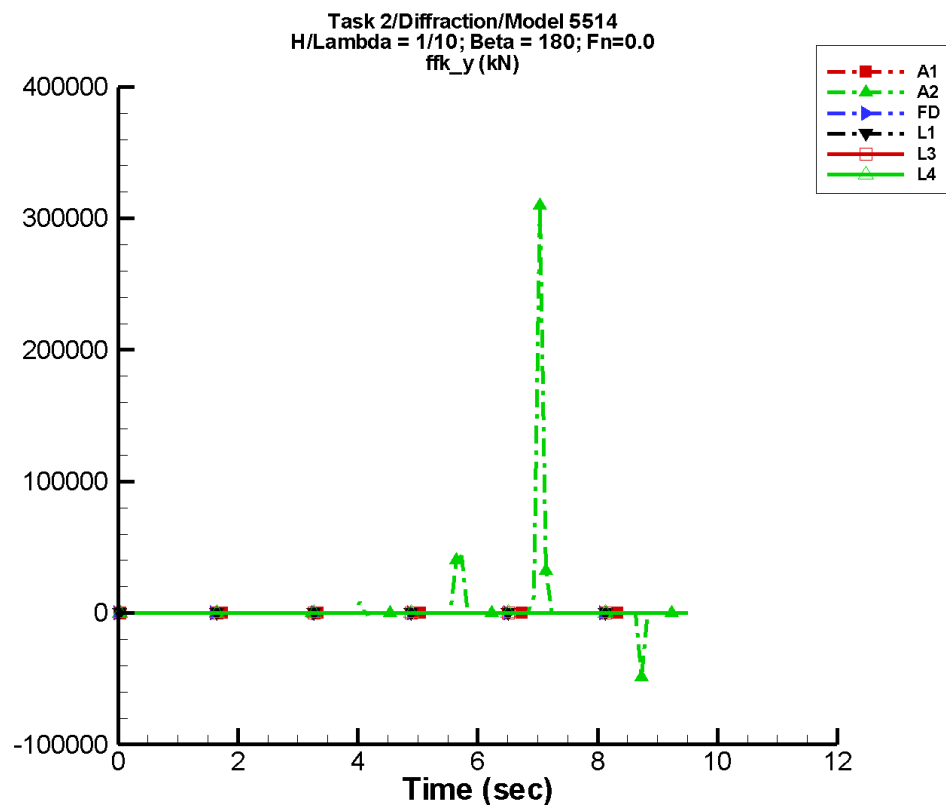
Table H-1157. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.79E-07	2.32E-04	-2	2.71E-07	-26
A2	-88.7	179.	9	161.	114
FD	2.83E-04	8.79E-04	-137	3.11E-04	-111
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-6.97E-05	2.80E-04	-151	2.13E-04	-93

Table H-1158. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.32E-04	2.32E-04	-2.29E-04	2.29E-04
A2	-8.00E+03	4.07E-02	-1.10E+03	92.7
FD	-1.15E-02	1.20E-02	-1.53E-03	1.83E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.26E-03	4.69E-03	-2.02E-03	6.86E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-580. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

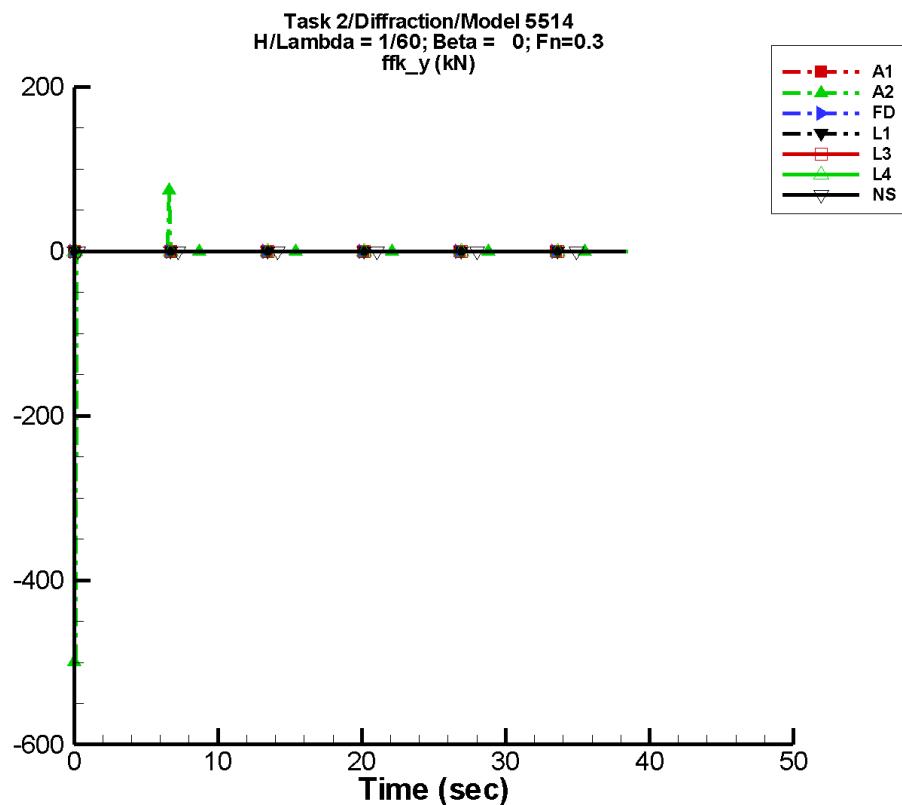
Table H-1159. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.68E-07	3.48E-04	-2	4.07E-07	-26
A2	4.34E+03	8.33E+03	-167	7.30E+03	-71
FD	1.20E-04	1.13E-03	-115	1.79E-04	145
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1160. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.48E-04	3.48E-04	-3.44E-04	3.44E-04
A2	-4.87E+04	3.10E+05	-6.67E+03	4.73E+04
FD	-1.76E-02	2.72E-02	-2.78E-03	3.82E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-581. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1161. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

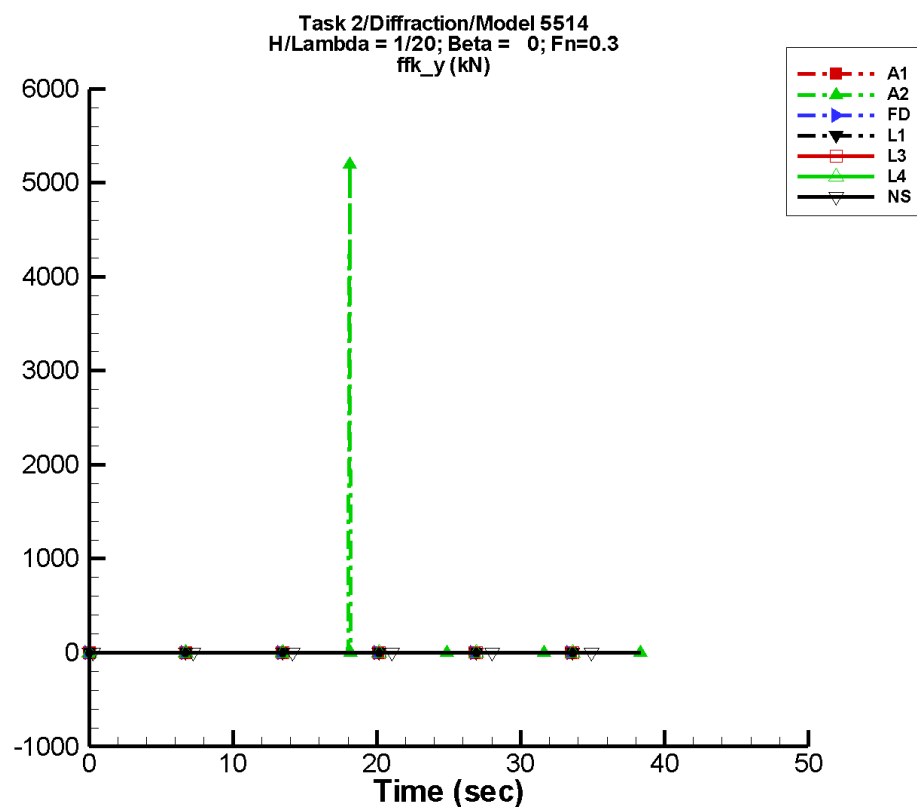
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.57E-08	5.82E-05	3	6.87E-08	171
A2	0.188	0.407	28	0.488	-29
FD	7.17E-05	6.49E-06	-164	5.35E-06	33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.72E-05	1.18E-04	-174	9.51E-05	18

Table H-1162. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.82E-05	5.82E-05	-5.82E-05	5.83E-05
A2	-6.40E-02	74.0	-0.847	9.87
FD	-6.51E-05	2.07E-04	2.88E-05	1.13E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.66E-04	8.62E-04	-2.98E-04	2.61E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-582. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

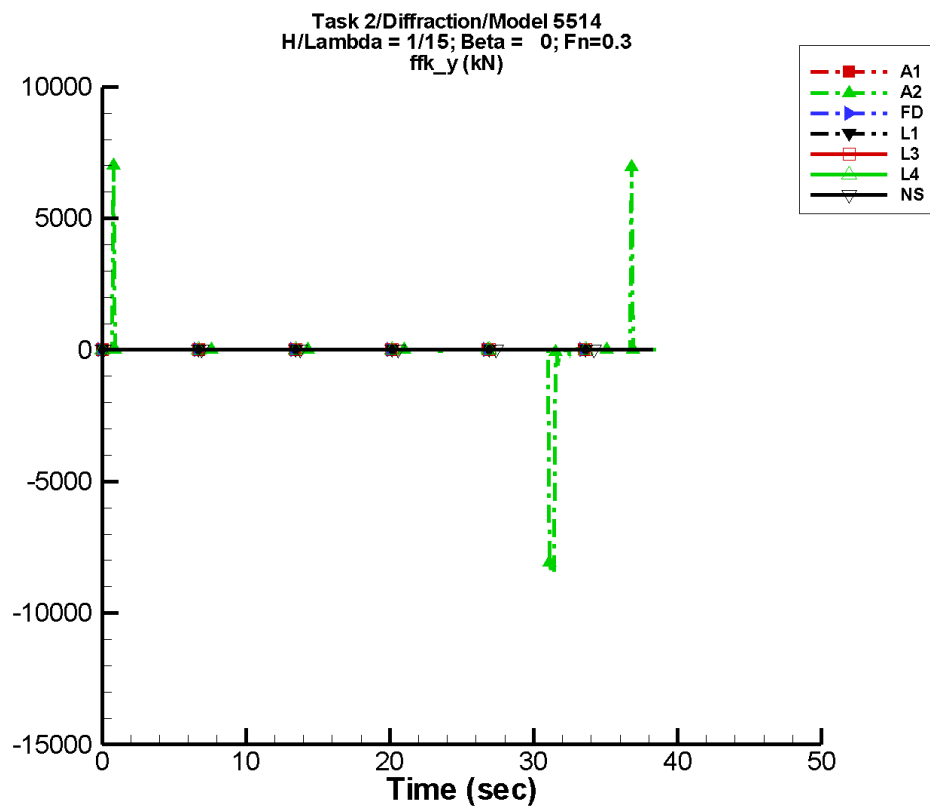
Table H-1163. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.37E-07	1.74E-04	3	2.06E-07	171
A2	14.5	27.5	-70	24.7	120
FD	7.57E-05	1.36E-05	141	1.66E-05	36
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.49E-05	8.24E-05	137	6.58E-05	147

Table H-1164. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.74E-04	1.74E-04	-1.74E-04	1.74E-04
A2	-2.75E-02	5.19E+03	-60.0	701.
FD	-1.57E-04	2.42E-04	6.21E-06	1.59E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.16E-03	3.74E-03	-4.91E-04	4.71E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-583. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

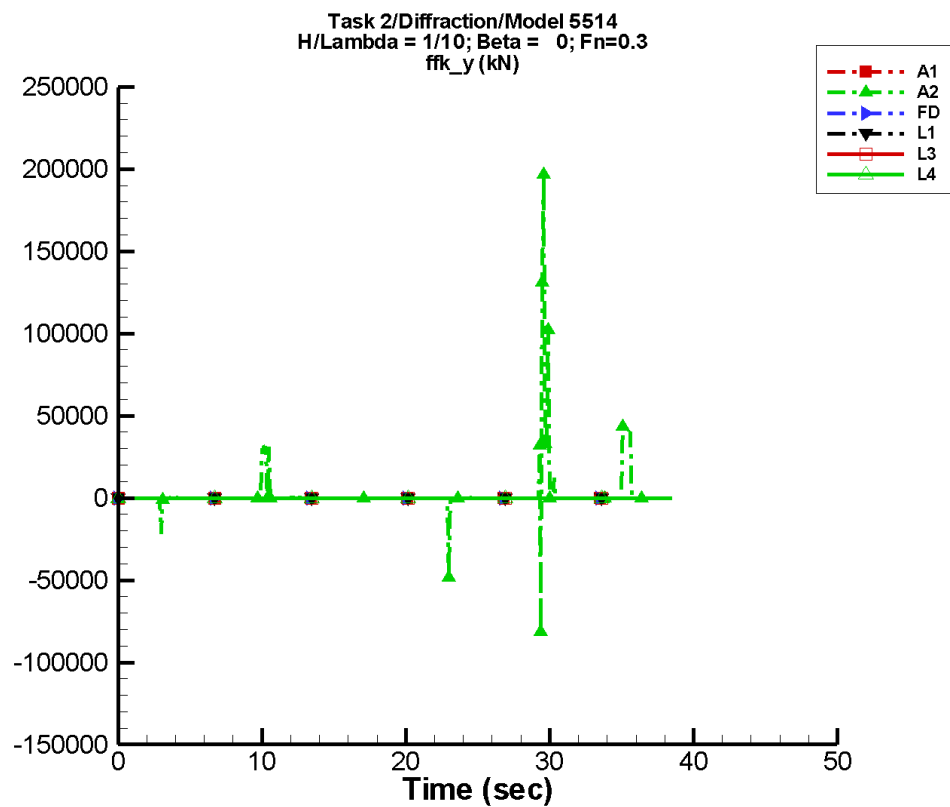
Table H-1165. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.82E-07	2.32E-04	3	2.74E-07	171
A2	-58.4	151.	4	215.	76
FD	6.55E-05	1.51E-05	142	8.55E-06	-23
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.96E-05	5.51E-04	147	1.57E-04	80

Table H-1166. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.32E-04	2.32E-04	-2.32E-04	2.32E-04
A2	-8.41E+03	7.01E+03	-4.22E+03	949.
FD	-1.58E-04	3.05E-04	-1.77E-05	1.21E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.23E-03	3.40E-03	-1.09E-03	1.06E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-584. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

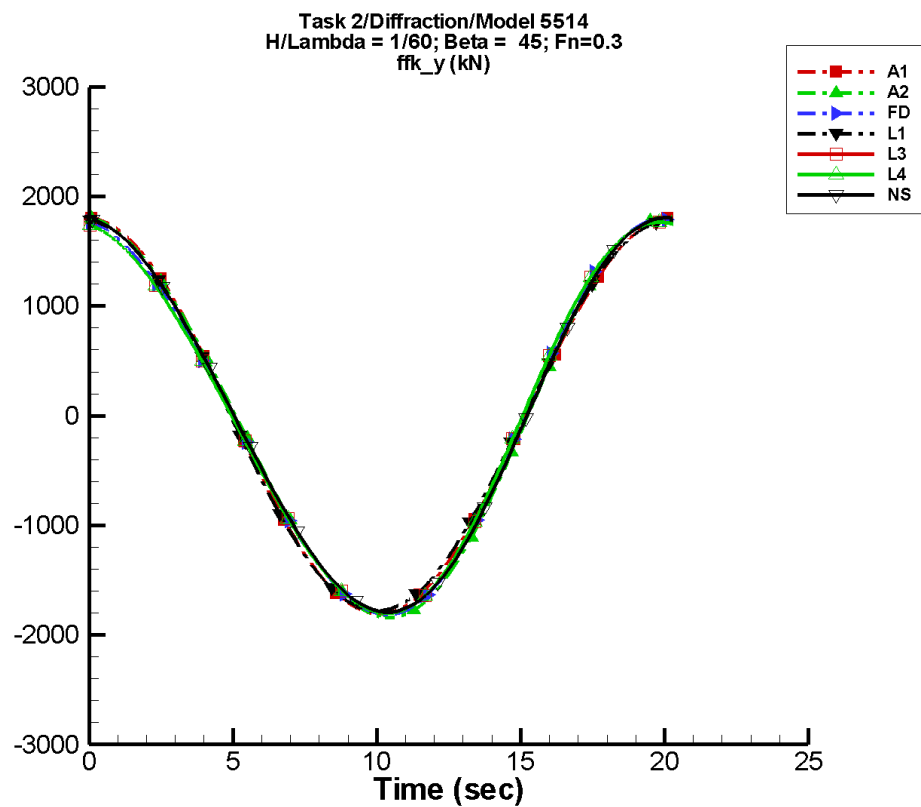
Table H-1167. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.73E-07	3.48E-04	3	4.11E-07	171
A2	1.96E+03	2.77E+03	153	3.27E+03	-124
FD	5.76E-05	3.07E-05	117	6.80E-06	28
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1168. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.48E-04	3.48E-04	-3.48E-04	3.49E-04
A2	-8.16E+04	1.96E+05	-6.42E+03	5.53E+04
FD	-2.78E-04	3.26E-04	-6.20E-05	1.33E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-585. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1169. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

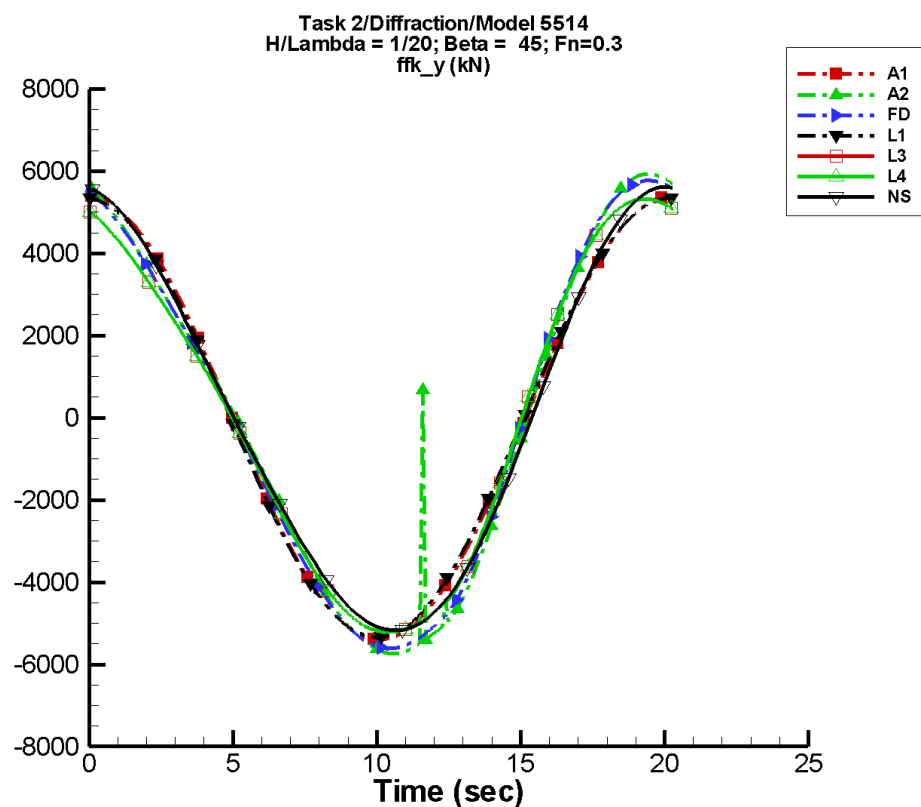
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.07	1.80E+03	83	3.09	-4
A2	-1.66	1.82E+03	82	70.1	173
FD	-2.31	1.79E+03	81	88.1	168
L1	-1.23E-02	1.78E+03	89	0.221	-176
L3	0.173	1.77E+03	89	96.1	-170
L4	0.173	1.77E+03	89	96.1	-170
NF	—	—	—	—	—
NS	2.69	1.79E+03	90	67.5	178

Table H-1170. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.80E+03	1.80E+03
A2	-1.84E+03	1.81E+03	-1.83E+03	1.81E+03
FD	-1.81E+03	1.79E+03	-1.81E+03	1.79E+03
L1	-1.78E+03	1.78E+03	-1.79E+03	1.78E+03
L3	-1.80E+03	1.76E+03	-1.80E+03	1.76E+03
L4	-1.80E+03	1.76E+03	-1.80E+03	1.76E+03
NF	—	—	—	—
NS	-1.79E+03	1.81E+03	-1.77E+03	1.79E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-586. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

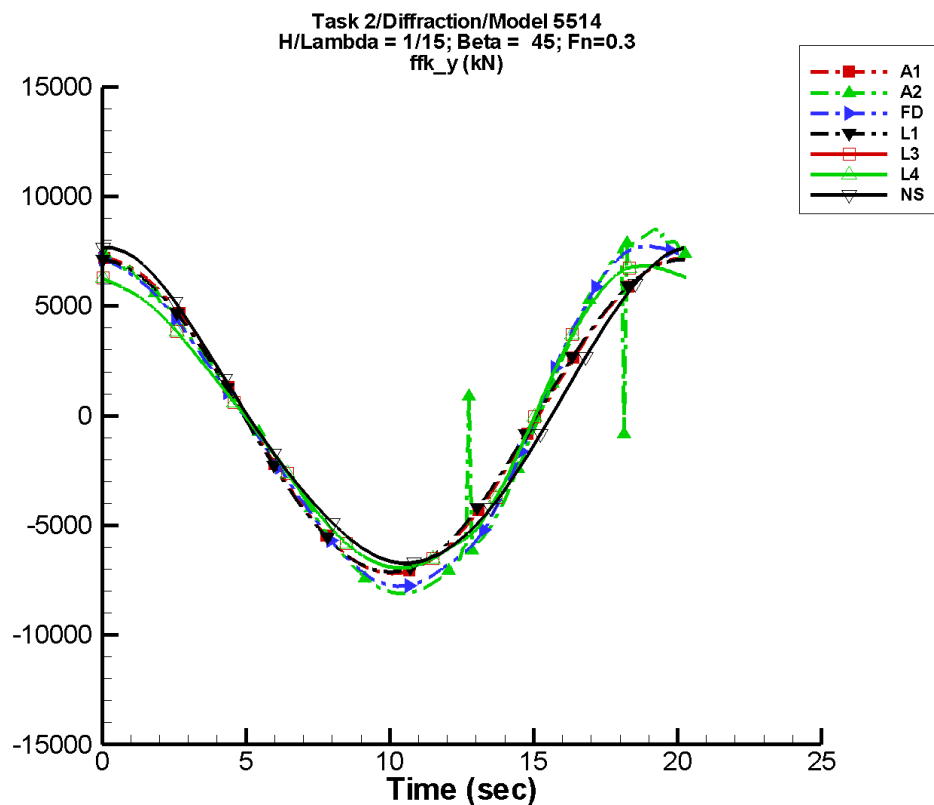
Table H-1171. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.19	5.40E+03	83	9.26	-4
A2	24.5	5.61E+03	83	684.	166
FD	-11.8	5.63E+03	82	637.	163
L1	-3.73E-02	5.34E+03	89	0.664	-176
L3	-5.86	5.24E+03	90	610.	-174
L4	-5.86	5.24E+03	90	610.	-174
NF	—	—	—	—	—
NS	35.9	5.33E+03	88	410.	151

Table H-1172. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.40E+03	-5.39E+03	5.39E+03
A2	-5.74E+03	5.93E+03	-5.79E+03	5.91E+03
FD	-5.62E+03	5.77E+03	-5.60E+03	5.75E+03
L1	-5.34E+03	5.34E+03	-5.36E+03	5.35E+03
L3	-5.21E+03	5.32E+03	-5.21E+03	5.32E+03
L4	-5.21E+03	5.32E+03	-5.21E+03	5.32E+03
NF	—	—	—	—
NS	-5.17E+03	5.62E+03	-5.12E+03	5.55E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-587. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

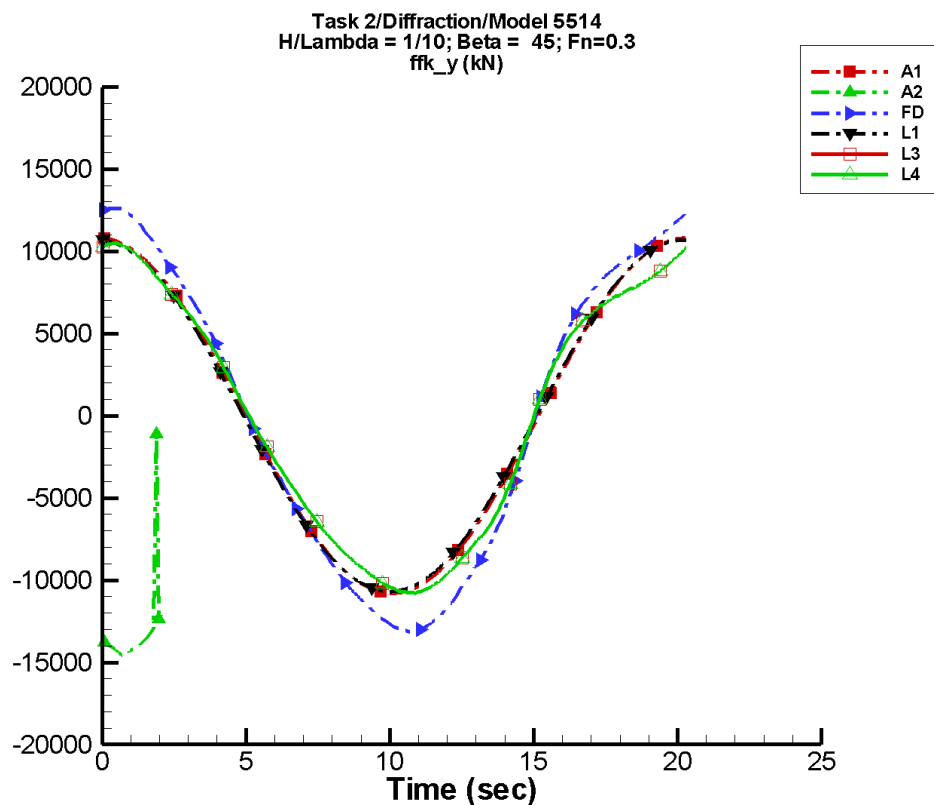
Table H-1173. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.24	7.19E+03	83	12.3	-4
A2	11.8	7.89E+03	88	879.	-179
FD	-10.3	7.74E+03	82	861.	169
L1	-4.91E-02	7.12E+03	89	0.883	-176
L3	-5.40	6.91E+03	91	802.	-168
L4	-5.40	6.91E+03	91	802.	-168
NF	—	—	—	—	—
NS	50.0	7.08E+03	86	492.	104

Table H-1174. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.19E+03	-7.17E+03	7.18E+03
A2	-8.11E+03	1.00E+04	-8.09E+03	8.37E+03
FD	-7.77E+03	7.72E+03	-7.75E+03	7.69E+03
L1	-7.12E+03	7.12E+03	-7.15E+03	7.13E+03
L3	-6.94E+03	6.85E+03	-6.94E+03	6.83E+03
L4	-6.94E+03	6.85E+03	-6.94E+03	6.83E+03
NF	—	—	—	—
NS	-6.72E+03	7.68E+03	-6.68E+03	7.71E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-588. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

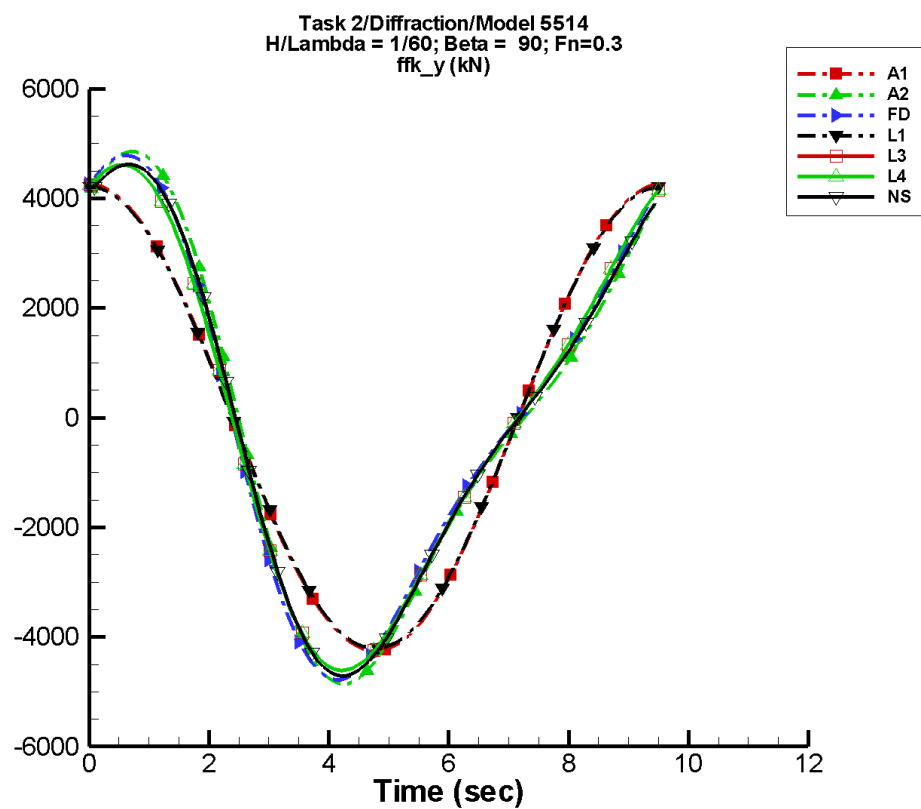
Table H-1175. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.4	1.08E+04	83	18.5	-4
A2	818.	1.18E+04	-45	9.81E+03	-138
FD	26.2	1.27E+04	78	604.	-170
L1	-7.44E-02	1.07E+04	89	1.33	-176
L3	47.5	1.04E+04	86	467.	-151
L4	47.5	1.04E+04	86	467.	-151
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1176. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.08E+04	1.08E+04
A2	-1.46E+04	-26.7	-1.45E+04	130.
FD	-1.31E+04	1.26E+04	-1.31E+04	1.26E+04
L1	-1.07E+04	1.07E+04	-1.07E+04	1.07E+04
L3	-1.08E+04	1.05E+04	-1.08E+04	1.04E+04
L4	-1.08E+04	1.05E+04	-1.08E+04	1.04E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-589. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1177. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

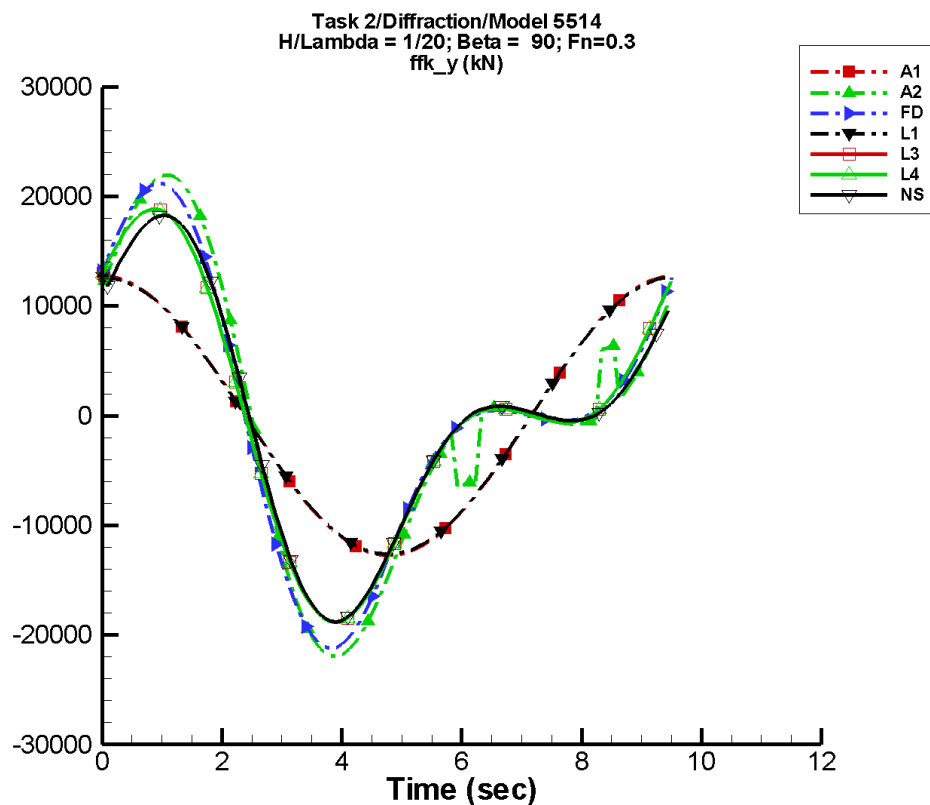
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.21	4.26E+03	85	5.74	28
A2	-3.32	4.32E+03	81	1.24E+03	-18
FD	-0.864	4.28E+03	84	1.19E+03	-11
L1	-2.92	4.21E+03	86	3.12	111
L3	-2.24	4.23E+03	86	992.	-7
L4	-2.24	4.23E+03	86	992.	-7
NF	—	—	—	—	—
NS	-5.62	4.22E+03	88	1.10E+03	-7

Table H-1178. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.26E+03	4.26E+03	-4.21E+03	4.25E+03
A2	-4.86E+03	4.86E+03	-4.77E+03	4.78E+03
FD	-4.79E+03	4.79E+03	-4.82E+03	4.70E+03
L1	-4.21E+03	4.21E+03	-4.19E+03	4.21E+03
L3	-4.61E+03	4.61E+03	-4.58E+03	4.59E+03
L4	-4.61E+03	4.61E+03	-4.58E+03	4.59E+03
NF	—	—	—	—
NS	-4.71E+03	4.62E+03	-4.64E+03	4.55E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-590. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

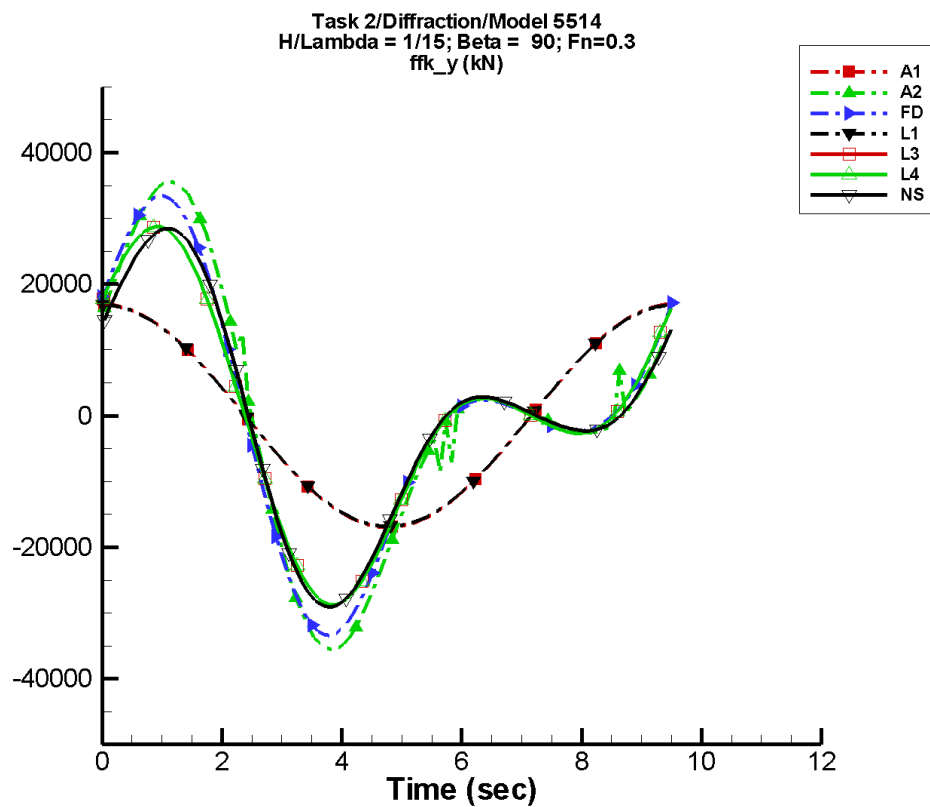
Table H-1179. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.6	1.27E+04	85	17.2	28
A2	-53.4	1.49E+04	80	9.86E+03	-19
FD	-26.8	1.41E+04	84	1.01E+04	-12
L1	-8.76	1.26E+04	86	9.35	111
L3	-0.220	1.31E+04	86	8.51E+03	-7
L4	-0.220	1.31E+04	86	8.51E+03	-7
NF	—	—	—	—	—
NS	-19.8	1.24E+04	88	8.76E+03	-8

Table H-1180. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.27E+04	1.27E+04	-1.26E+04	1.27E+04
A2	-2.19E+04	2.20E+04	-2.13E+04	2.14E+04
FD	-2.12E+04	2.12E+04	-2.07E+04	2.06E+04
L1	-1.26E+04	1.26E+04	-1.26E+04	1.26E+04
L3	-1.88E+04	1.88E+04	-1.87E+04	1.87E+04
L4	-1.88E+04	1.88E+04	-1.87E+04	1.87E+04
NF	—	—	—	—
NS	-1.88E+04	1.83E+04	-1.83E+04	1.79E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-591. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

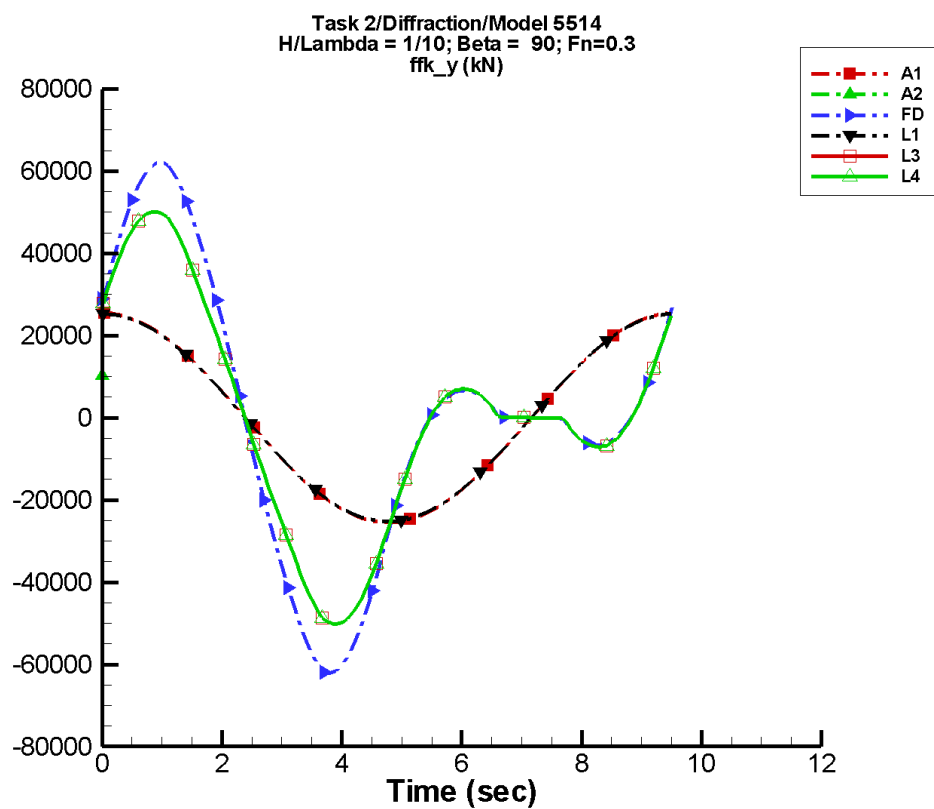
Table H-1181. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-16.8	1.70E+04	85	22.8	28
A2	-0.634	2.10E+04	80	1.83E+04	-19
FD	-53.5	2.01E+04	84	1.73E+04	-12
L1	-11.7	1.68E+04	86	12.5	111
L3	13.2	1.79E+04	87	1.44E+04	-7
L4	13.2	1.79E+04	87	1.44E+04	-7
NF	—	—	—	—	—
NS	5.61	1.69E+04	88	1.52E+04	-6

Table H-1182. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.69E+04	1.70E+04	-1.68E+04	1.69E+04
A2	-3.55E+04	3.56E+04	-3.44E+04	3.45E+04
FD	-3.35E+04	3.35E+04	-3.23E+04	3.24E+04
L1	-1.68E+04	1.68E+04	-1.68E+04	1.68E+04
L3	-2.88E+04	2.88E+04	-2.84E+04	2.84E+04
L4	-2.88E+04	2.88E+04	-2.84E+04	2.84E+04
NF	—	—	—	—
NS	-2.91E+04	2.85E+04	-2.86E+04	2.80E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-592. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

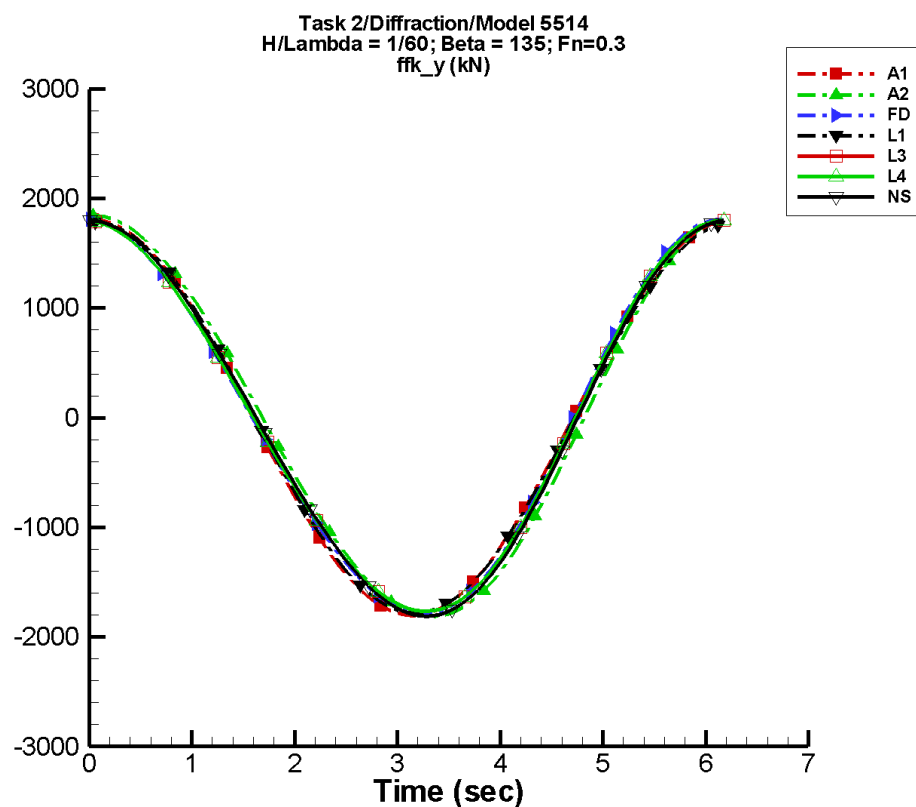
Table H-1183. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-25.2	2.55E+04	85	34.3	28
A2	3.03E+04	8.20E+04	-102	8.05E+04	4
FD	-64.8	3.37E+04	84	3.31E+04	-11
L1	-17.5	2.53E+04	86	18.7	111
L3	186.	2.81E+04	87	2.57E+04	-6
L4	186.	2.81E+04	87	2.57E+04	-6
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1184. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.55E+04	2.55E+04	-2.52E+04	2.54E+04
A2	1.01E+04	1.55E+04	1.01E+04	1.55E+04
FD	-6.22E+04	6.22E+04	-5.97E+04	5.96E+04
L1	-2.53E+04	2.53E+04	-2.52E+04	2.53E+04
L3	-5.01E+04	5.01E+04	-4.96E+04	4.96E+04
L4	-5.01E+04	5.01E+04	-4.96E+04	4.96E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-593. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1185. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

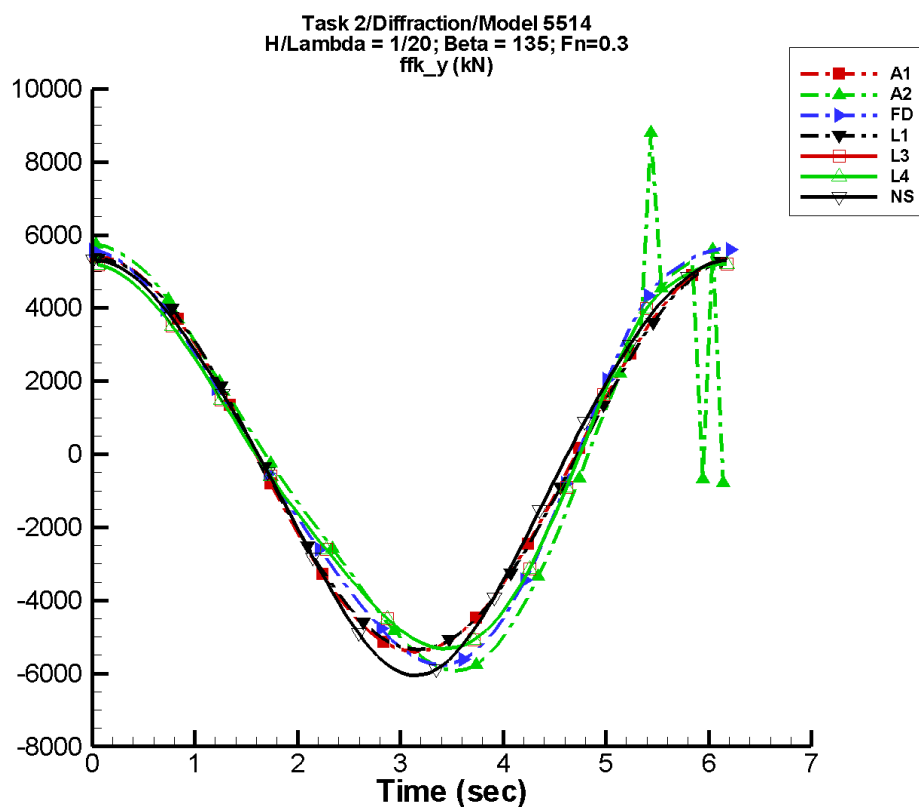
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.58	1.80E+03	81	3.47	23
A2	-2.82	1.82E+03	75	71.6	138
FD	-1.05	1.79E+03	66	90.5	124
L1	-2.02	1.78E+03	77	2.37	38
L3	-2.01	1.78E+03	77	95.5	141
L4	-2.01	1.78E+03	77	95.5	141
NF	—	—	—	—	—
NS	-8.65	1.80E+03	85	79.3	166

Table H-1186. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+03	1.80E+03	-1.76E+03	1.80E+03
A2	-1.81E+03	1.84E+03	-1.77E+03	1.83E+03
FD	-1.79E+03	1.81E+03	-1.74E+03	1.79E+03
L1	-1.78E+03	1.78E+03	-1.76E+03	1.78E+03
L3	-1.76E+03	1.80E+03	-1.75E+03	1.78E+03
L4	-1.76E+03	1.80E+03	-1.75E+03	1.78E+03
NF	—	—	—	—
NS	-1.81E+03	1.80E+03	-1.79E+03	1.80E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-594. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

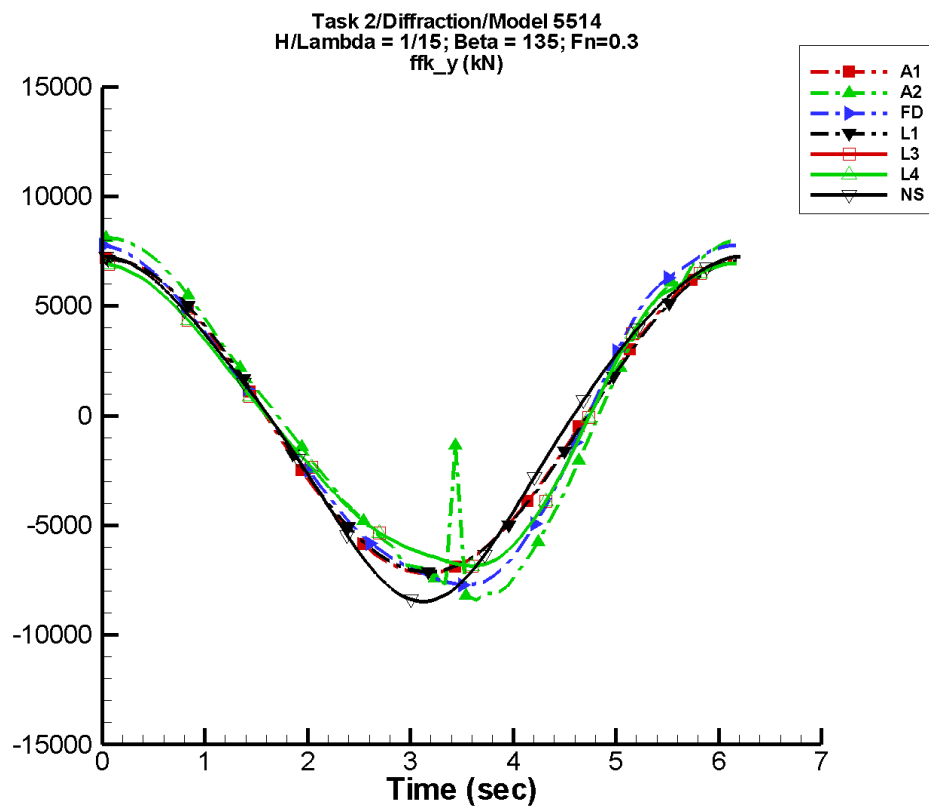
Table H-1187. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-7.73	5.40E+03	81	10.4	23
A2	-76.4	5.51E+03	73	619.	170
FD	-4.20	5.64E+03	64	636.	128
L1	-6.07	5.34E+03	77	7.10	38
L3	0.452	5.25E+03	76	606.	148
L4	0.452	5.25E+03	76	606.	148
NF	—	—	—	—	—
NS	-56.4	5.57E+03	89	302.	-110

Table H-1188. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.40E+03	5.40E+03	-5.26E+03	5.37E+03
A2	-5.93E+03	8.81E+03	-5.75E+03	5.69E+03
FD	-5.77E+03	5.61E+03	-5.61E+03	5.53E+03
L1	-5.34E+03	5.34E+03	-5.29E+03	5.33E+03
L3	-5.32E+03	5.21E+03	-5.26E+03	5.17E+03
L4	-5.32E+03	5.21E+03	-5.26E+03	5.17E+03
NF	—	—	—	—
NS	-6.06E+03	5.33E+03	-5.98E+03	5.33E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-595. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

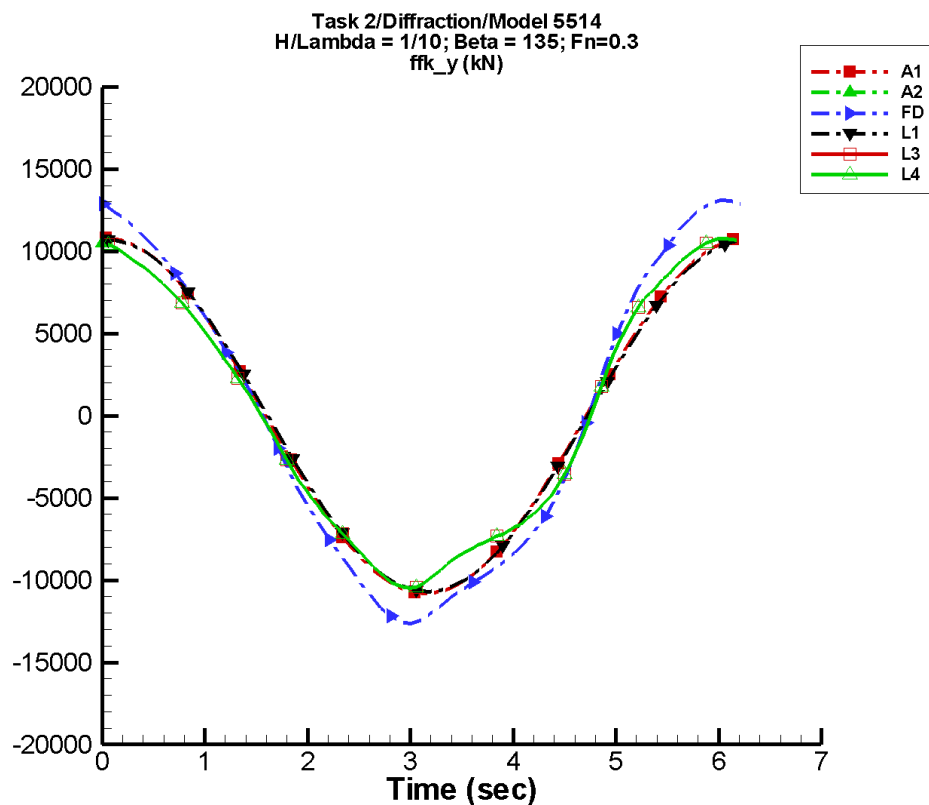
Table H-1189. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-10.3	7.19E+03	81	13.8	23
A2	97.4	7.77E+03	73	974.	129
FD	-12.0	7.76E+03	64	882.	121
L1	-8.09	7.12E+03	77	9.46	38
L3	0.409	6.93E+03	76	816.	142
L4	0.409	6.93E+03	76	816.	142
NF	—	—	—	—	—
NS	-63.7	7.55E+03	90	513.	-102

Table H-1190. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.19E+03	7.19E+03	-7.00E+03	7.15E+03
A2	-8.42E+03	8.11E+03	-7.25E+03	8.08E+03
FD	-7.72E+03	7.77E+03	-7.53E+03	7.68E+03
L1	-7.12E+03	7.12E+03	-7.06E+03	7.11E+03
L3	-6.85E+03	6.94E+03	-6.76E+03	6.88E+03
L4	-6.85E+03	6.94E+03	-6.76E+03	6.88E+03
NF	—	—	—	—
NS	-8.48E+03	7.25E+03	-8.40E+03	7.25E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-596. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

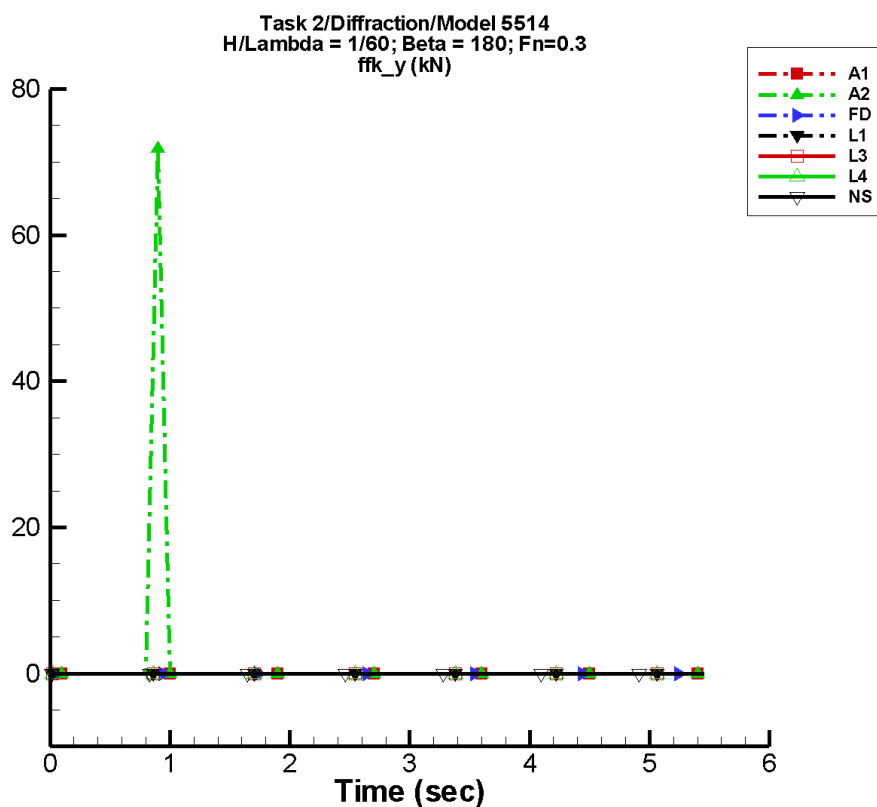
Table H-1191. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-15.5	1.08E+04	81	20.8	23
A2	-7.31E+03	1.18E+04	-170	1.50E+04	133
FD	-63.6	1.26E+04	68	629.	95
L1	-12.1	1.07E+04	77	14.2	38
L3	-39.1	1.04E+04	81	584.	117
L4	-39.1	1.04E+04	81	584.	117
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1192. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.08E+04	1.08E+04	-1.05E+04	1.07E+04
A2	9.38E+03	1.05E+04	9.38E+03	1.05E+04
FD	-1.26E+04	1.31E+04	-1.20E+04	1.26E+04
L1	-1.07E+04	1.07E+04	-1.06E+04	1.07E+04
L3	-1.05E+04	1.08E+04	-1.02E+04	1.06E+04
L4	-1.05E+04	1.08E+04	-1.02E+04	1.06E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-597. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1193. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

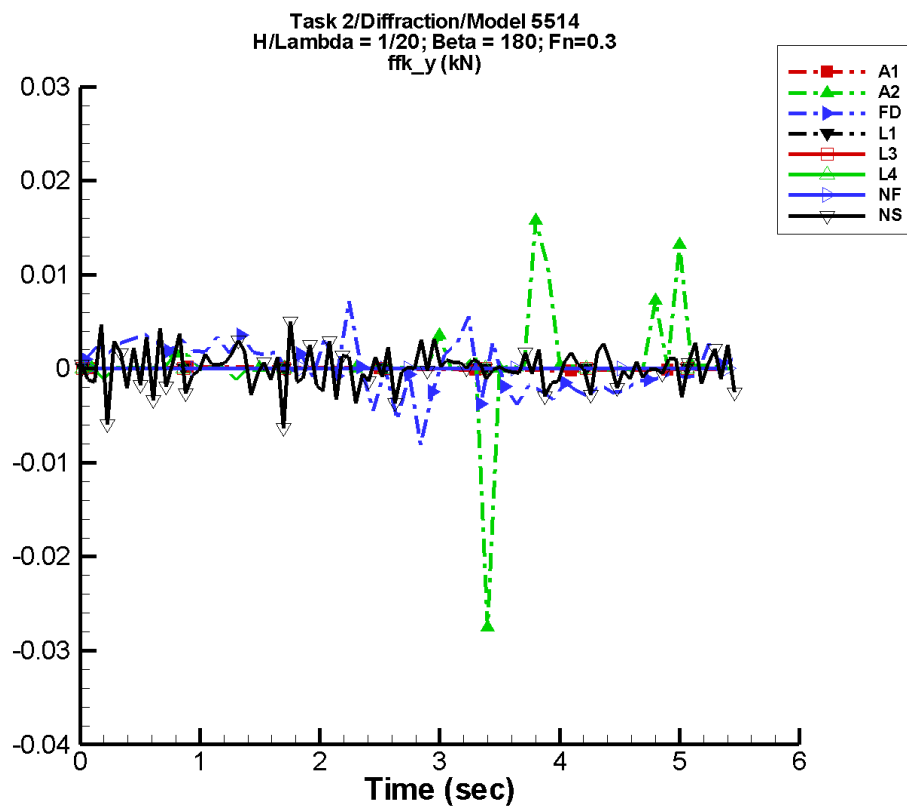
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	6.05E-08	5.82E-05	9	1.11E-07	168
A2	0.875	1.86	28	2.11	-30
FD	-3.28E-04	2.55E-04	94	7.08E-04	-35
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	7.85E-05	1.38E-04	162	9.01E-05	93

Table H-1194. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.81E-05	5.82E-05	-5.62E-05	5.63E-05
A2	-9.10E-05	71.8	-0.821	9.57
FD	-1.89E-03	2.30E-03	-1.10E-03	8.02E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.09E-03	1.87E-03	-2.75E-04	4.00E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-598. Time history of  $F_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

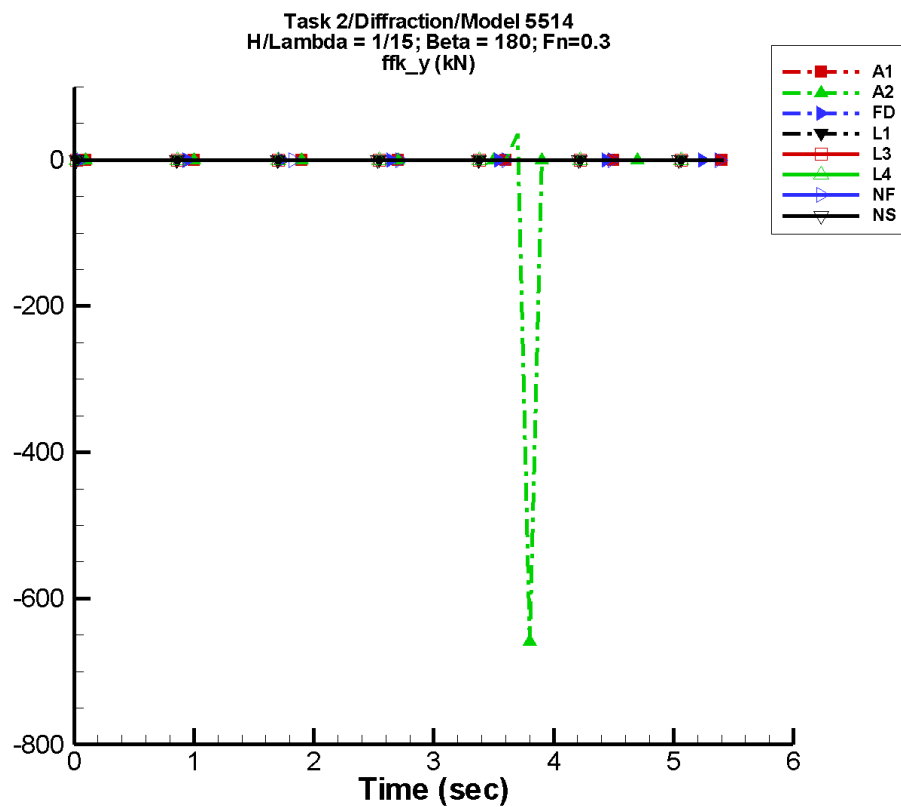
Table H-1195. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.81E-07	1.74E-04	9	3.31E-07	168
A2	5.23E-04	1.14E-03	136	1.13E-03	-140
FD	-1.82E-05	2.28E-03	130	1.25E-03	163
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.99E-05	4.61E-05	-151	1.79E-04	10

Table H-1196. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.74E-04	1.74E-04	-1.68E-04	1.68E-04
A2	-2.75E-02	1.58E-02	-2.15E-03	2.59E-03
FD	-1.32E-02	7.22E-03	-5.04E-03	3.04E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-6.31E-03	5.03E-03	-5.96E-04	9.74E-04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-599. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

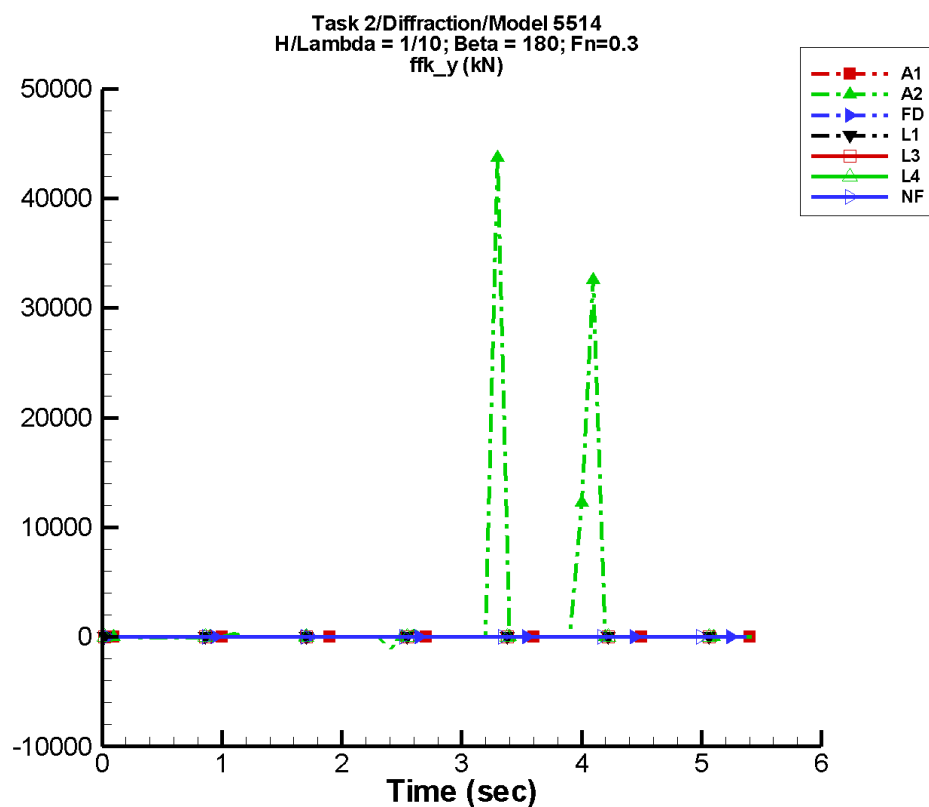
Table H-1197. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.41E-07	2.32E-04	9	4.41E-07	168
A2	-11.6	22.9	24	21.9	143
FD	-1.24E-04	2.23E-03	164	3.88E-03	162
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.21E-04	3.37E-04	-98	2.85E-04	-28

Table H-1198. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.32E-04	2.32E-04	-2.24E-04	2.24E-04
A2	-659.	35.9	-83.3	7.26
FD	-2.19E-02	2.58E-02	-8.44E-03	3.70E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.84E-03	9.13E-03	-1.59E-03	1.21E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-600. Time history of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

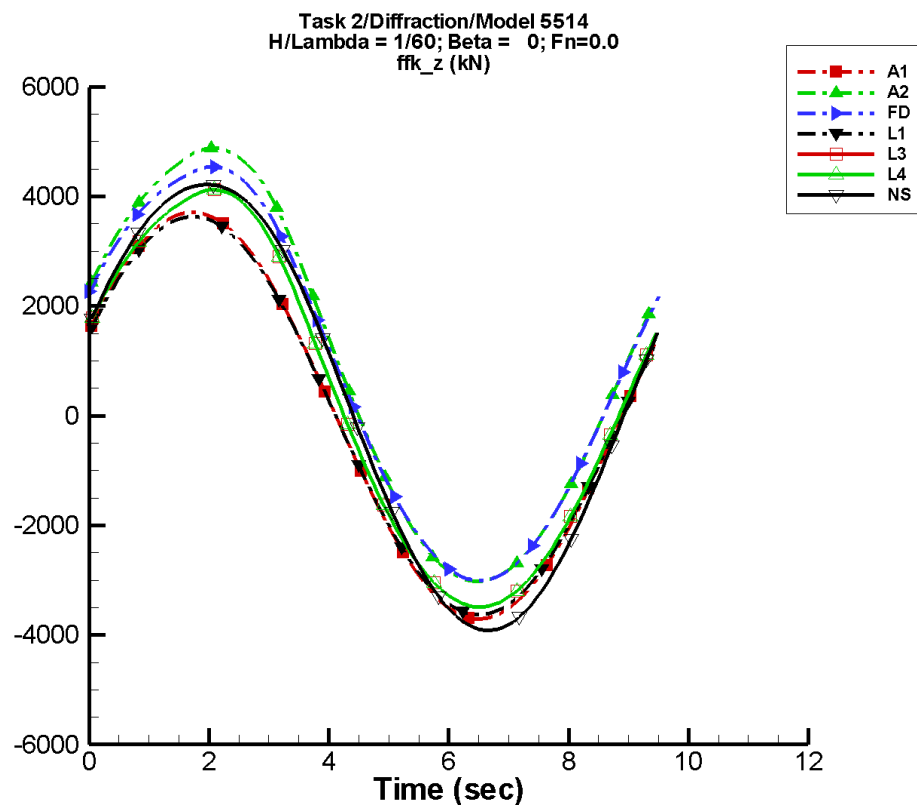
Table H-1199. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.62E-07	3.48E-04	9	6.63E-07	168
A2	1.61E+03	2.95E+03	-148	2.00E+03	-23
FD	-3.62E-03	8.58E-03	180	7.68E-03	-173
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1200. Minimum and maximum of  $F_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.48E-04	3.48E-04	-3.36E-04	3.37E-04
A2	-1.17E+03	4.38E+04	-573.	6.16E+03
FD	-5.46E-02	3.40E-02	-2.07E-02	6.48E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-601. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1201. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

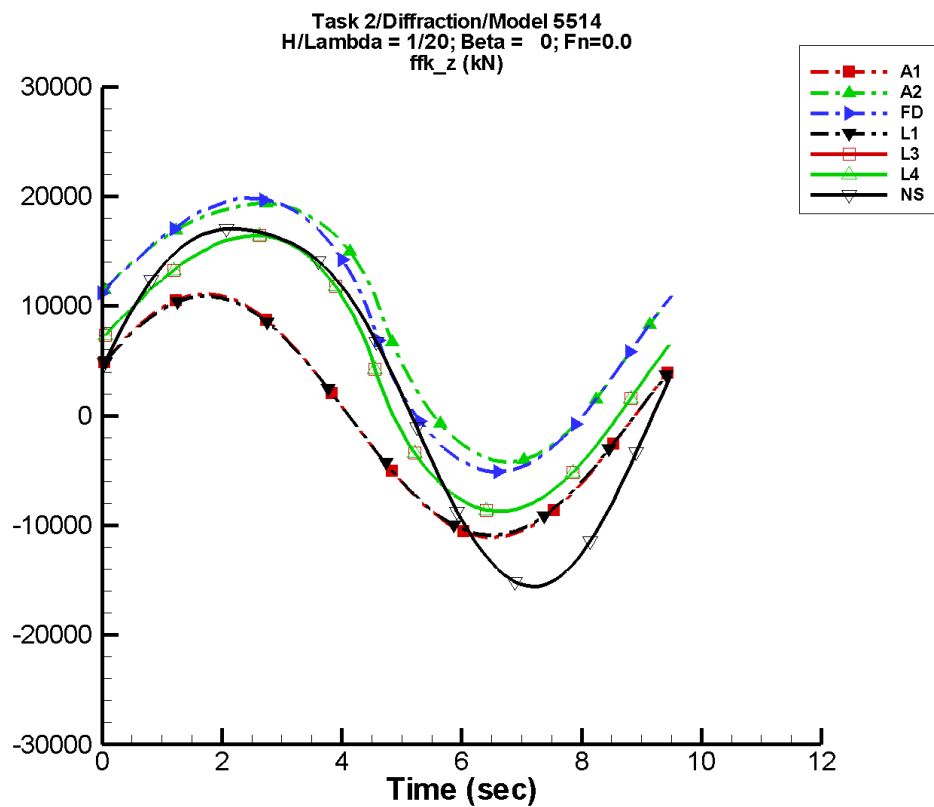
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.99	3.71E+03	20	5.27	-9
A2	917.	3.96E+03	17	191.	-152
FD	802.	3.79E+03	17	150.	-164
L1	-1.44	3.63E+03	21	2.30	-37
L3	287.	3.82E+03	18	166.	-139
L4	287.	3.82E+03	18	166.	-139
NF	—	—	—	—	—
NS	263.	4.11E+03	18	119.	144

Table H-1202. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.71E+03	3.71E+03	-3.67E+03	3.71E+03
A2	-3.02E+03	4.88E+03	-2.98E+03	4.83E+03
FD	-3.01E+03	4.54E+03	-2.96E+03	4.49E+03
L1	-3.63E+03	3.63E+03	-3.62E+03	3.62E+03
L3	-3.49E+03	4.12E+03	-3.48E+03	4.10E+03
L4	-3.49E+03	4.12E+03	-3.48E+03	4.10E+03
NF	—	—	—	—
NS	-3.92E+03	4.22E+03	-3.88E+03	4.19E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-602. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

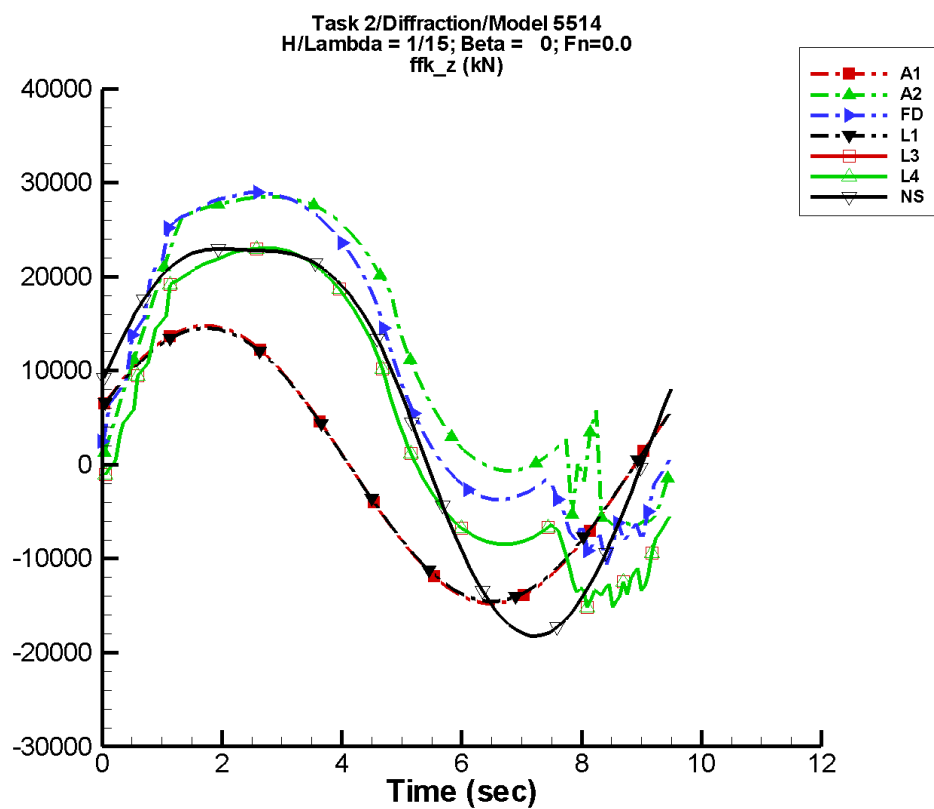
Table H-1203. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-11.9	1.11E+04	20	15.8	-9
A2	8.63E+03	1.20E+04	2	1.78E+03	139
FD	8.06E+03	1.27E+04	6	1.74E+03	158
L1	-4.33	1.09E+04	21	6.91	-37
L3	4.28E+03	1.28E+04	6	1.61E+03	167
L4	4.28E+03	1.28E+04	6	1.61E+03	167
NF	—	—	—	—	—
NS	2.57E+03	1.66E+04	-1	1.92E+03	81

Table H-1204. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.11E+04	1.11E+04	-1.10E+04	1.11E+04
A2	-4.22E+03	1.94E+04	-4.07E+03	1.93E+04
FD	-5.12E+03	1.98E+04	-4.97E+03	1.97E+04
L1	-1.09E+04	1.09E+04	-1.09E+04	1.09E+04
L3	-8.72E+03	1.64E+04	-8.68E+03	1.64E+04
L4	-8.72E+03	1.64E+04	-8.68E+03	1.64E+04
NF	—	—	—	—
NS	-1.56E+04	1.70E+04	-1.54E+04	1.71E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-603. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

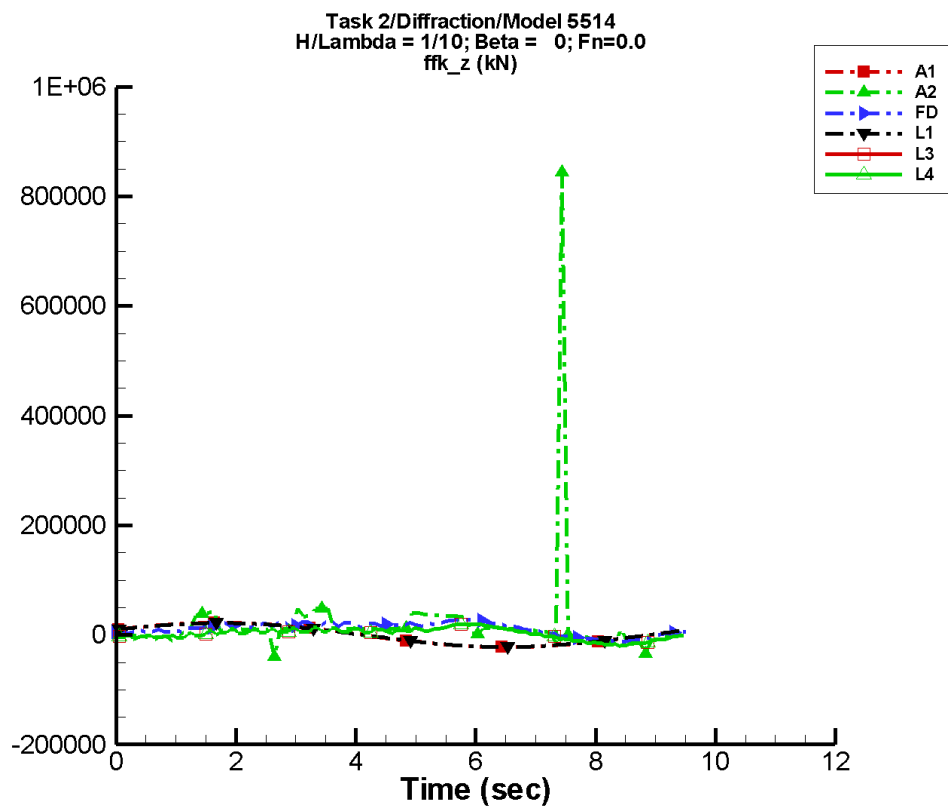
Table H-1205. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-15.9	1.48E+04	20	21.0	-9
A2	1.22E+04	1.76E+04	-24	3.04E+03	-88
FD	1.04E+04	1.93E+04	-18	2.20E+03	-70
L1	-5.77	1.45E+04	21	9.21	-37
L3	4.78E+03	1.86E+04	-17	2.50E+03	-67
L4	4.78E+03	1.86E+04	-17	2.50E+03	-67
NF	—	—	—	—	—
NS	6.02E+03	2.12E+04	-2	3.76E+03	83

Table H-1206. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.48E+04	1.48E+04	-1.46E+04	1.48E+04
A2	-6.49E+03	2.85E+04	-6.09E+03	2.84E+04
FD	-1.08E+04	2.90E+04	-8.41E+03	2.88E+04
L1	-1.45E+04	1.45E+04	-1.45E+04	1.45E+04
L3	-1.52E+04	2.30E+04	-1.40E+04	2.30E+04
L4	-1.52E+04	2.30E+04	-1.40E+04	2.30E+04
NF	—	—	—	—
NS	-1.82E+04	2.30E+04	-1.81E+04	2.30E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-604. Time history of  $F_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

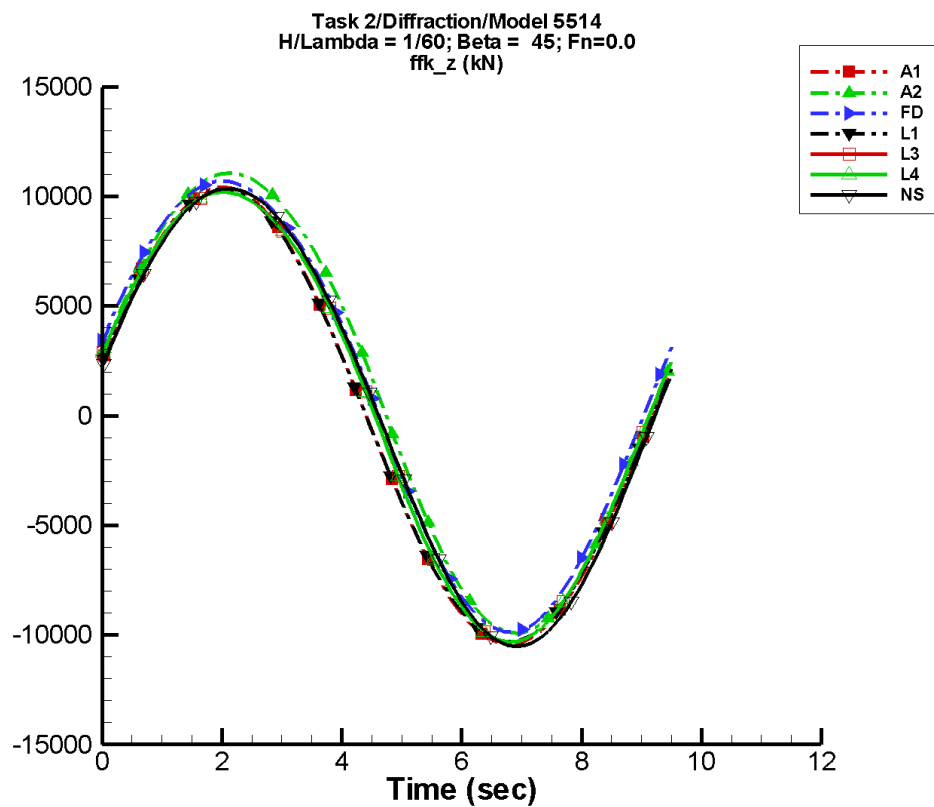
Table H-1207. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-23.9	2.22E+04	20	31.6	-9
A2	1.98E+04	1.40E+04	-139	1.66E+04	-98
FD	1.15E+04	1.32E+04	-67	5.58E+03	-11
L1	-8.66	2.18E+04	21	13.8	-37
L3	2.24E+03	1.13E+04	-76	5.41E+03	-13
L4	2.24E+03	1.13E+04	-76	5.41E+03	-13
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1208. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.22E+04	2.22E+04	-2.20E+04	2.22E+04
A2	-4.01E+04	8.44E+05	-1.90E+04	1.11E+05
FD	-1.32E+04	2.83E+04	-1.02E+04	2.61E+04
L1	-2.18E+04	2.18E+04	-2.17E+04	2.17E+04
L3	-1.98E+04	2.02E+04	-1.77E+04	1.93E+04
L4	-1.98E+04	2.02E+04	-1.77E+04	1.93E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-605. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1209. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

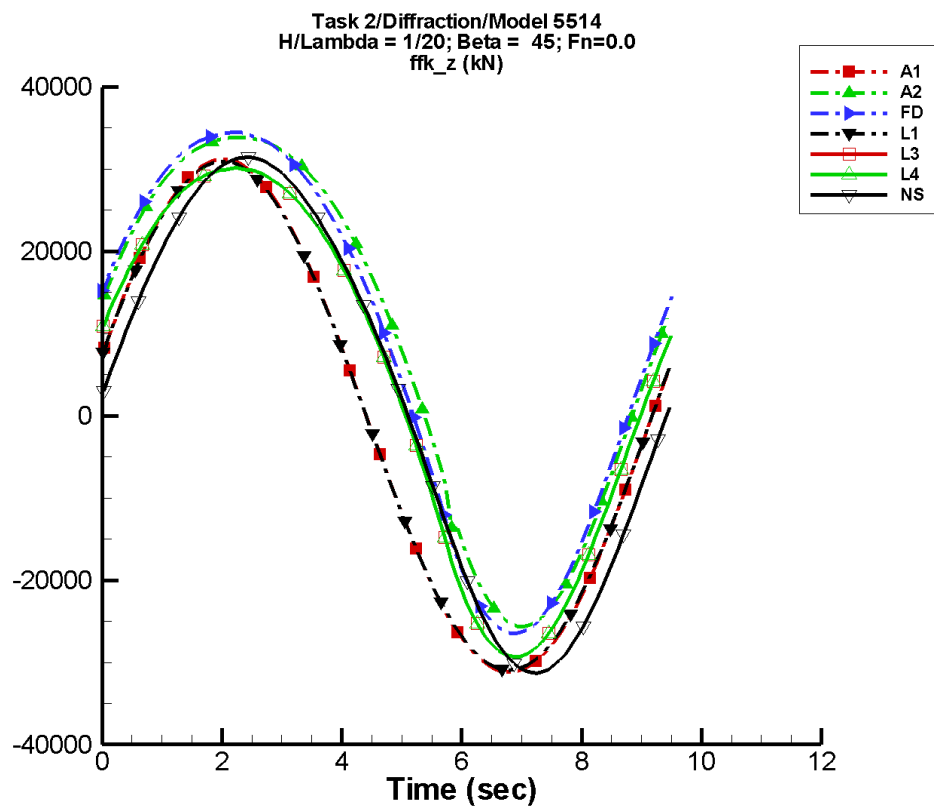
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.84	1.04E+04	9	13.6	-16
A2	917.	1.05E+04	4	360.	101
FD	806.	1.03E+04	7	414.	103
L1	-5.27	1.03E+04	10	7.50	-15
L3	283.	1.03E+04	9	355.	109
L4	283.	1.03E+04	9	355.	109
NF	—	—	—	—	—
NS	229.	1.04E+04	9	317.	97

Table H-1210. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
A2	-9.91E+03	1.11E+04	-9.79E+03	1.10E+04
FD	-9.87E+03	1.07E+04	-9.74E+03	1.06E+04
L1	-1.03E+04	1.03E+04	-1.03E+04	1.03E+04
L3	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
L4	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
NF	—	—	—	—
NS	-1.05E+04	1.04E+04	-1.04E+04	1.04E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-606. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

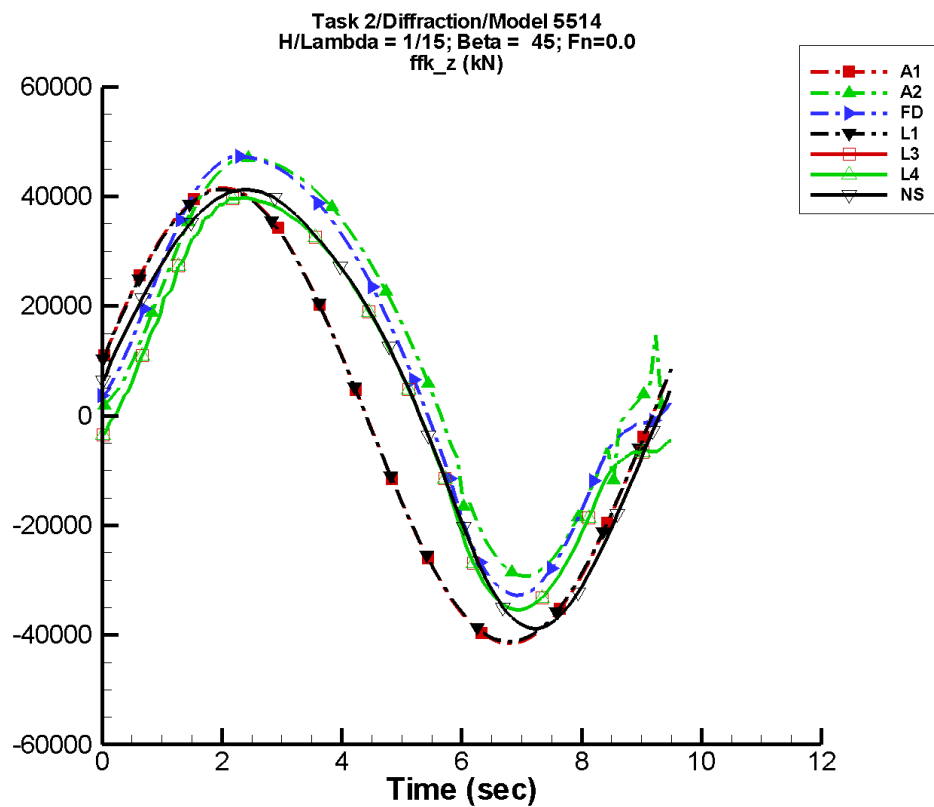
Table H-1211. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-29.4	3.12E+04	9	40.8	-16
A2	8.57E+03	2.95E+04	-2	4.44E+03	87
FD	7.98E+03	3.02E+04	1	3.97E+03	94
L1	-15.8	3.09E+04	10	22.5	-15
L3	4.27E+03	2.94E+04	2	3.89E+03	99
L4	4.27E+03	2.94E+04	2	3.89E+03	99
NF	—	—	—	—	—
NS	2.22E+03	3.09E+04	-4	2.14E+03	77

Table H-1212. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.12E+04	3.12E+04	-3.08E+04	3.09E+04
A2	-2.57E+04	3.39E+04	-2.51E+04	3.37E+04
FD	-2.65E+04	3.45E+04	-2.60E+04	3.43E+04
L1	-3.09E+04	3.09E+04	-3.08E+04	3.08E+04
L3	-2.93E+04	3.01E+04	-2.92E+04	3.00E+04
L4	-2.93E+04	3.01E+04	-2.92E+04	3.00E+04
NF	—	—	—	—
NS	-3.13E+04	3.14E+04	-3.09E+04	3.14E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-607. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

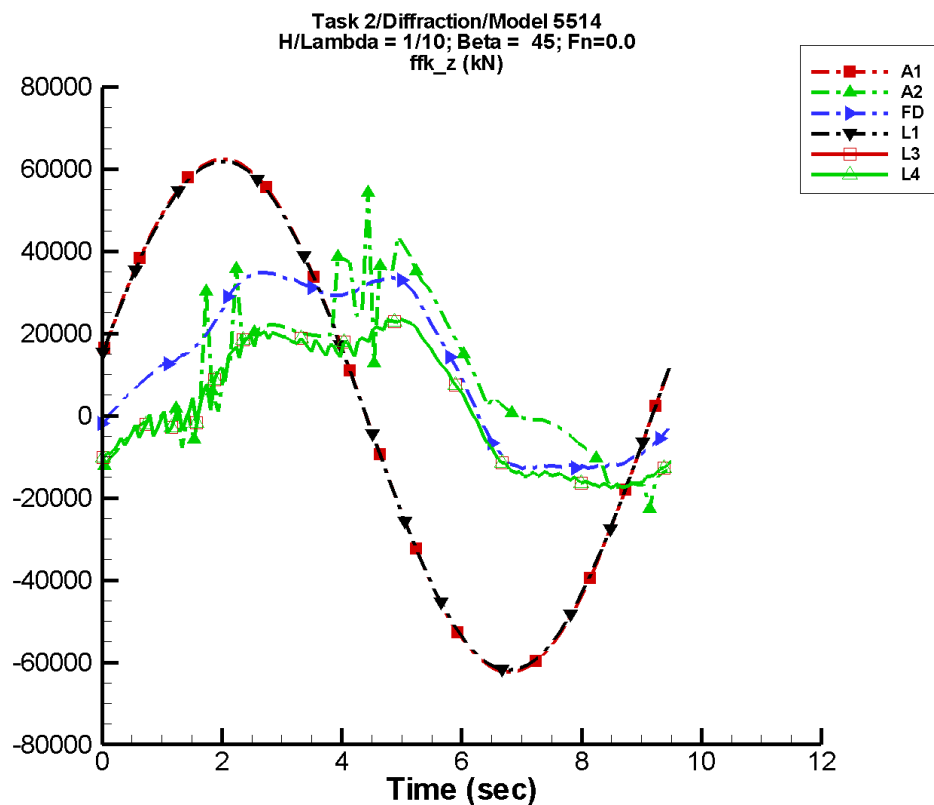
Table H-1213. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-39.2	4.15E+04	9	54.3	-16
A2	1.16E+04	3.56E+04	-16	4.04E+03	151
FD	1.00E+04	3.74E+04	-11	2.86E+03	151
L1	-21.1	4.13E+04	10	30.0	-15
L3	4.65E+03	3.52E+04	-11	3.34E+03	160
L4	4.65E+03	3.52E+04	-11	3.34E+03	160
NF	—	—	—	—	—
NS	5.33E+03	3.90E+04	-5	4.05E+03	76

Table H-1214. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.15E+04	4.15E+04	-4.11E+04	4.12E+04
A2	-2.93E+04	4.70E+04	-2.85E+04	4.67E+04
FD	-3.28E+04	4.74E+04	-3.20E+04	4.70E+04
L1	-4.13E+04	4.13E+04	-4.11E+04	4.11E+04
L3	-3.54E+04	3.97E+04	-3.51E+04	3.96E+04
L4	-3.54E+04	3.97E+04	-3.51E+04	3.96E+04
NF	—	—	—	—
NS	-3.89E+04	4.13E+04	-3.85E+04	4.13E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-608. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

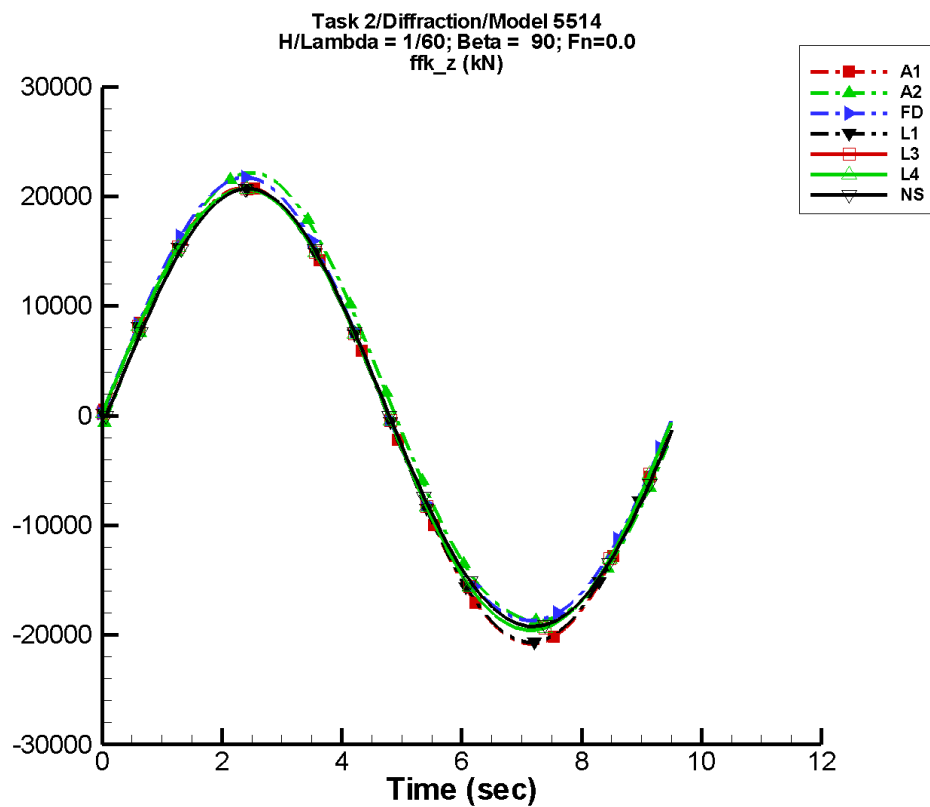
Table H-1215. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-58.9	6.24E+04	9	81.6	-16
A2	9.05E+03	2.30E+04	-70	3.62E+03	45
FD	1.13E+04	2.47E+04	-43	2.68E+03	50
L1	-31.6	6.19E+04	10	45.0	-15
L3	2.14E+03	1.96E+04	-55	2.66E+03	63
L4	2.14E+03	1.96E+04	-55	2.66E+03	63
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1216. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.24E+04	6.24E+04	-6.17E+04	6.19E+04
A2	-2.27E+04	5.53E+04	-1.75E+04	3.93E+04
FD	-1.29E+04	3.49E+04	-1.24E+04	3.43E+04
L1	-6.19E+04	6.19E+04	-6.16E+04	6.16E+04
L3	-1.75E+04	2.35E+04	-1.71E+04	2.29E+04
L4	-1.75E+04	2.35E+04	-1.71E+04	2.29E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-609. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1217. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

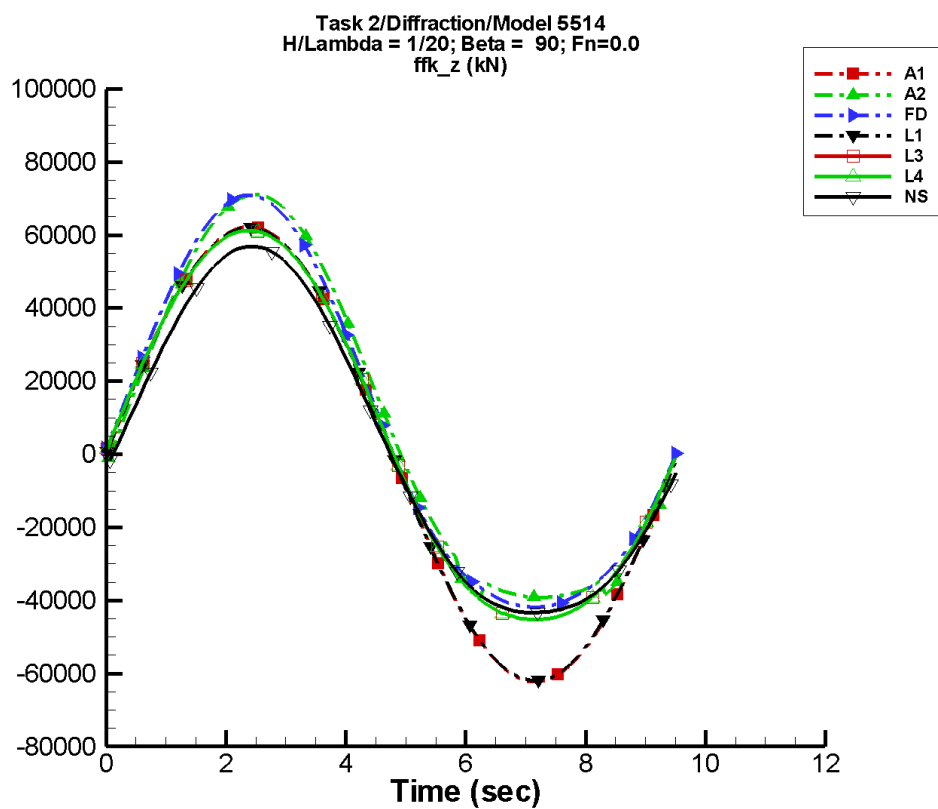
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-15.1	2.08E+04	-5	23.6	-28
A2	915.	2.06E+04	-9	767.	-105
FD	808.	2.03E+04	-6	662.	-101
L1	9.08	2.07E+04	-4	16.3	29
L3	304.	2.02E+04	-3	208.	-99
L4	304.	2.02E+04	-3	208.	-99
NF	—	—	—	—	—
NS	194.	2.00E+04	-2	519.	-94

Table H-1218. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.08E+04	2.08E+04	-2.06E+04	2.06E+04
A2	-1.87E+04	2.21E+04	-1.85E+04	2.19E+04
FD	-1.87E+04	2.17E+04	-1.85E+04	2.15E+04
L1	-2.07E+04	2.07E+04	-2.06E+04	2.06E+04
L3	-1.96E+04	2.07E+04	-1.95E+04	2.06E+04
L4	-1.96E+04	2.07E+04	-1.95E+04	2.06E+04
NF	—	—	—	—
NS	-1.92E+04	2.07E+04	-1.91E+04	2.05E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-610. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

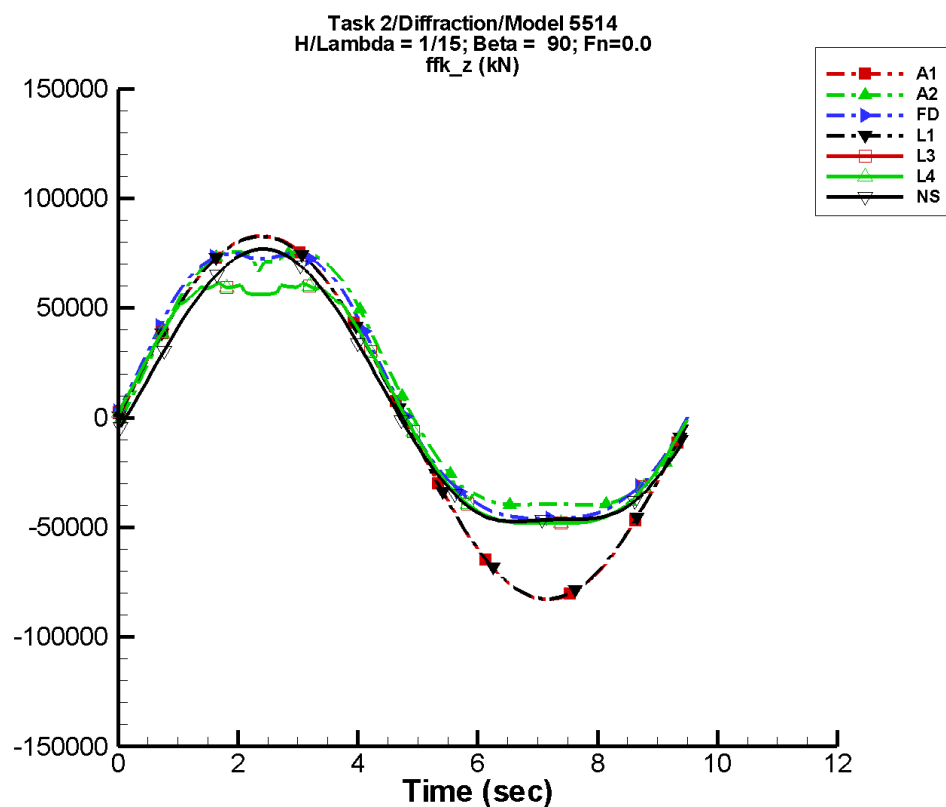
Table H-1219. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-45.2	6.23E+04	-5	70.7	-28
A2	8.32E+03	5.68E+04	-9	7.21E+03	-107
FD	8.08E+03	5.71E+04	-6	6.43E+03	-101
L1	27.2	6.20E+04	-4	49.0	29
L3	4.45E+03	5.45E+04	-3	3.43E+03	-100
L4	4.45E+03	5.45E+04	-3	3.43E+03	-100
NF	—	—	—	—	—
NS	1.93E+03	5.09E+04	-2	4.56E+03	-95

Table H-1220. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.22E+04	6.22E+04	-6.16E+04	6.15E+04
A2	-3.93E+04	7.10E+04	-3.89E+04	7.02E+04
FD	-4.19E+04	7.09E+04	-4.16E+04	7.01E+04
L1	-6.20E+04	6.20E+04	-6.18E+04	6.17E+04
L3	-4.53E+04	6.12E+04	-4.52E+04	6.10E+04
L4	-4.53E+04	6.12E+04	-4.52E+04	6.10E+04
NF	—	—	—	—
NS	-4.33E+04	5.69E+04	-4.31E+04	5.64E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-611. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

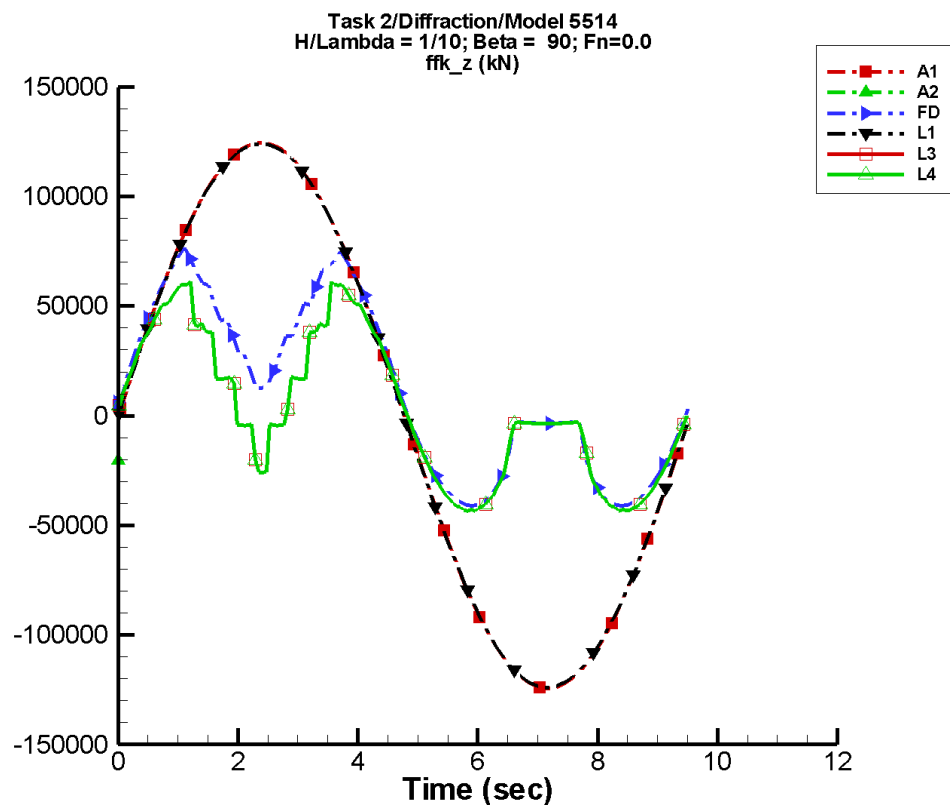
Table H-1221. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-60.2	8.29E+04	-5	94.1	-28
A2	1.20E+04	6.48E+04	-8	7.52E+03	-101
FD	1.07E+04	6.65E+04	-6	4.30E+03	-101
L1	36.3	8.26E+04	-4	65.3	29
L3	5.37E+03	6.03E+04	-3	1.34E+03	-131
L4	5.37E+03	6.03E+04	-3	1.34E+03	-131
NF	—	—	—	—	—
NS	4.74E+03	6.39E+04	-1	9.53E+03	-94

Table H-1222. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.29E+04	8.28E+04	-8.20E+04	8.19E+04
A2	-4.02E+04	7.58E+04	-3.96E+04	7.53E+04
FD	-4.60E+04	7.52E+04	-4.60E+04	7.38E+04
L1	-8.26E+04	8.26E+04	-8.23E+04	8.23E+04
L3	-4.81E+04	6.17E+04	-4.81E+04	6.02E+04
L4	-4.81E+04	6.17E+04	-4.81E+04	6.02E+04
NF	—	—	—	—
NS	-4.73E+04	7.69E+04	-4.71E+04	7.65E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-612. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

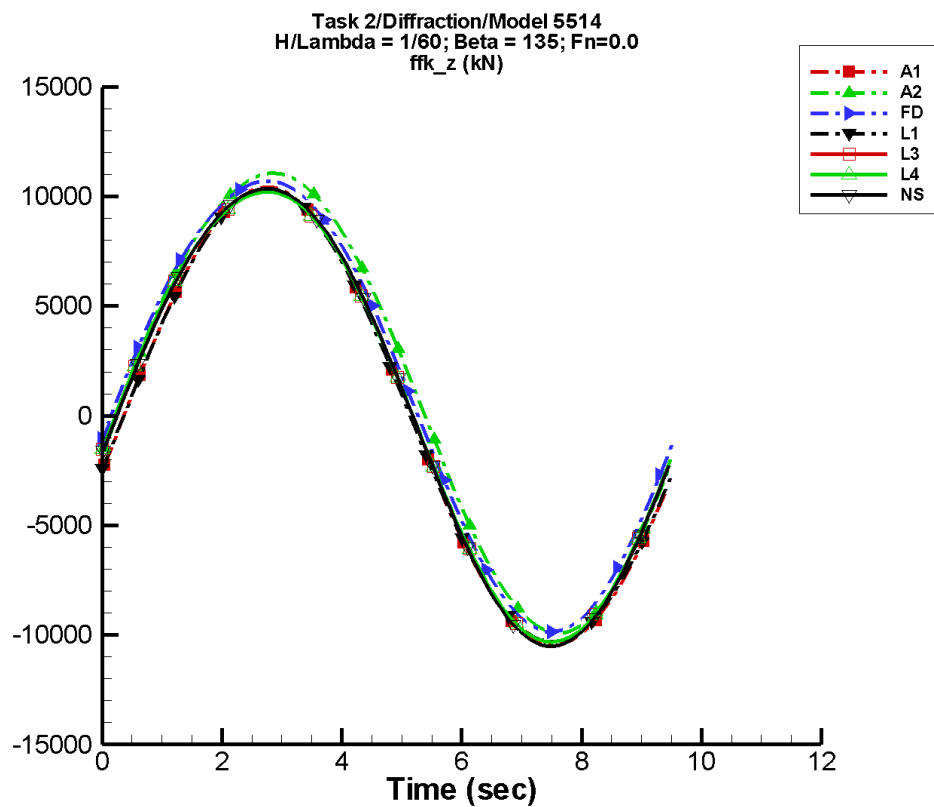
Table H-1223. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-90.5	1.25E+05	-5	141.	-28
A2	3.32E+04	1.33E+05	102	3.02E+04	100
FD	1.34E+04	4.30E+04	-5	6.10E+03	77
L1	54.4	1.24E+05	-4	97.9	29
L3	5.10E+03	2.71E+04	6	8.37E+03	113
L4	5.10E+03	2.71E+04	6	8.37E+03	113
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1224. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.24E+05	1.24E+05	-1.23E+05	1.23E+05
A2	-2.04E+04	-1.19E+04	-2.04E+04	-1.19E+04
FD	-4.11E+04	7.67E+04	-3.90E+04	6.73E+04
L1	-1.24E+05	1.24E+05	-1.24E+05	1.23E+05
L3	-4.34E+04	6.13E+04	-4.25E+04	5.60E+04
L4	-4.34E+04	6.13E+04	-4.25E+04	5.60E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-613. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1225. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

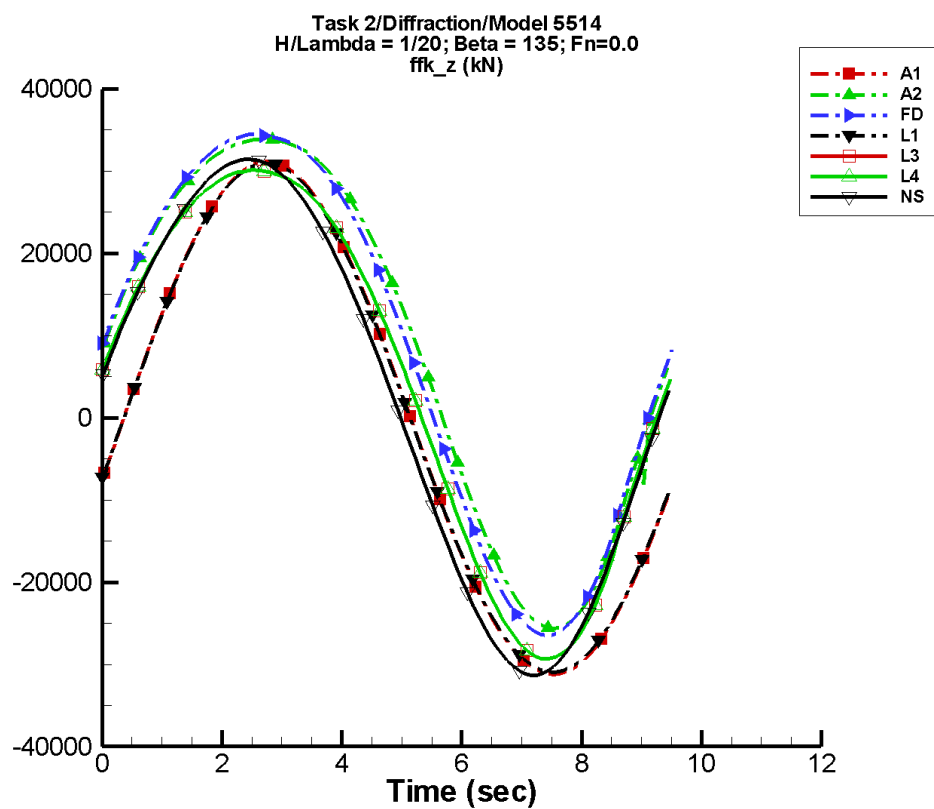
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.88	1.04E+04	-19	10.0	-45
A2	923.	1.05E+04	-21	391.	40
FD	809.	1.03E+04	-18	419.	55
L1	-0.148	1.03E+04	-18	0.601	79
L3	291.	1.03E+04	-16	382.	56
L4	291.	1.03E+04	-16	382.	56
NF	—	—	—	—	—
NS	229.	1.04E+04	-13	330.	69

Table H-1226. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.04E+04	1.04E+04	-1.03E+04	1.03E+04
A2	-9.91E+03	1.11E+04	-9.79E+03	1.10E+04
FD	-9.87E+03	1.07E+04	-9.74E+03	1.06E+04
L1	-1.03E+04	1.03E+04	-1.03E+04	1.03E+04
L3	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
L4	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
NF	—	—	—	—
NS	-1.05E+04	1.04E+04	-1.04E+04	1.03E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-614. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

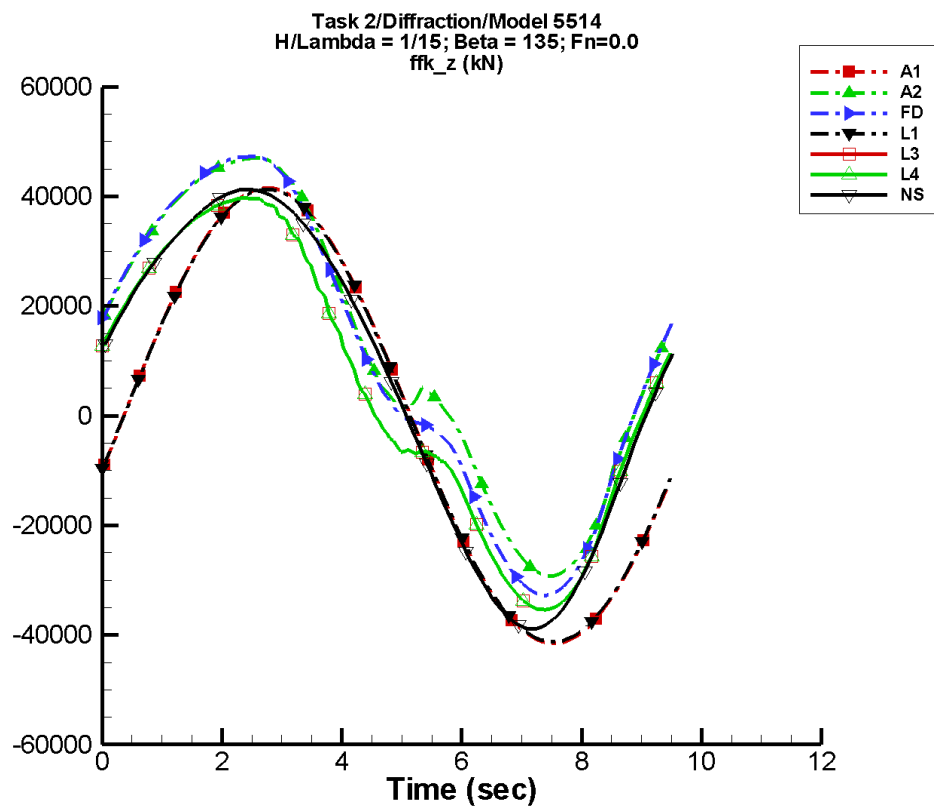
Table H-1227. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-14.6	3.12E+04	-19	30.0	-45
A2	8.54E+03	2.95E+04	-16	4.52E+03	57
FD	8.01E+03	3.02E+04	-13	4.02E+03	64
L1	-0.446	3.10E+04	-18	1.81	79
L3	4.28E+03	2.94E+04	-10	3.87E+03	67
L4	4.28E+03	2.94E+04	-10	3.87E+03	67
NF	—	—	—	—	—
NS	2.21E+03	3.09E+04	0	2.23E+03	91

Table H-1228. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.12E+04	3.12E+04	-3.09E+04	3.09E+04
A2	-2.57E+04	3.39E+04	-2.52E+04	3.37E+04
FD	-2.65E+04	3.45E+04	-2.60E+04	3.42E+04
L1	-3.09E+04	3.09E+04	-3.08E+04	3.08E+04
L3	-2.93E+04	3.01E+04	-2.91E+04	3.00E+04
L4	-2.93E+04	3.01E+04	-2.91E+04	3.00E+04
NF	—	—	—	—
NS	-3.13E+04	3.14E+04	-3.09E+04	3.12E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-615. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

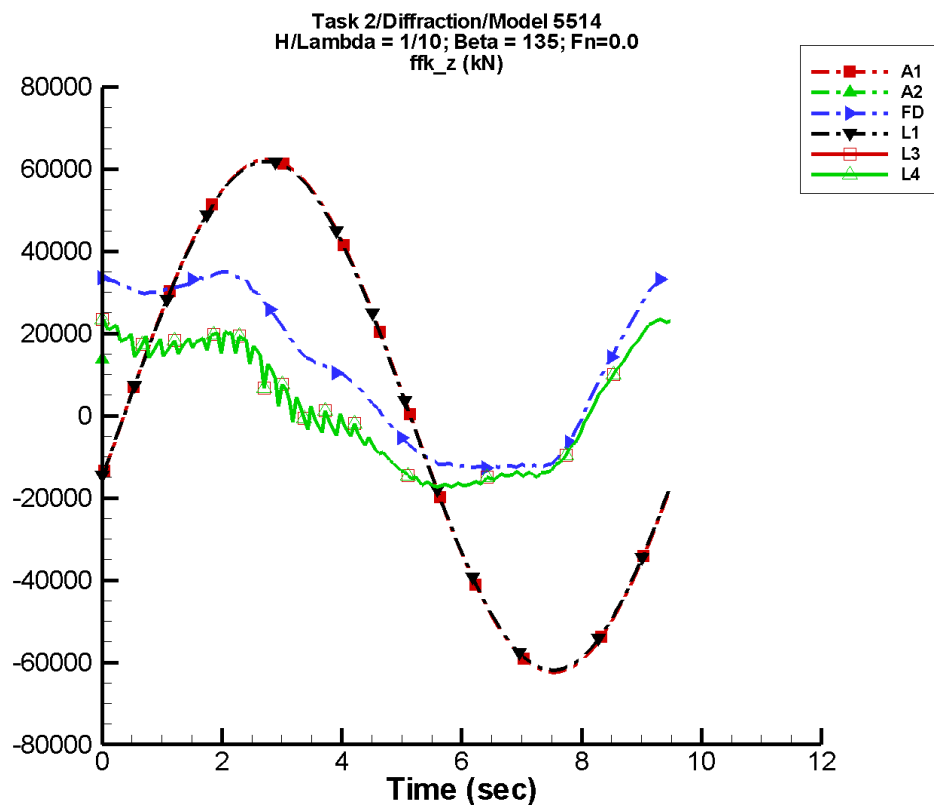
Table H-1229. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-19.4	4.15E+04	-19	40.0	-45
A2	1.17E+04	3.47E+04	-3	4.07E+03	9
FD	1.03E+04	3.75E+04	-1	3.02E+03	15
L1	-0.602	4.13E+04	-18	2.41	79
L3	4.69E+03	3.50E+04	3	2.85E+03	11
L4	4.69E+03	3.50E+04	3	2.85E+03	11
NF	—	—	—	—	—
NS	5.29E+03	3.90E+04	2	4.24E+03	95

Table H-1230. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.15E+04	4.15E+04	-4.11E+04	4.11E+04
A2	-2.93E+04	4.70E+04	-2.85E+04	4.66E+04
FD	-3.28E+04	4.74E+04	-3.20E+04	4.70E+04
L1	-4.13E+04	4.13E+04	-4.11E+04	4.11E+04
L3	-3.54E+04	3.97E+04	-3.51E+04	3.96E+04
L4	-3.54E+04	3.97E+04	-3.51E+04	3.96E+04
NF	—	—	—	—
NS	-3.89E+04	4.13E+04	-3.85E+04	4.11E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-616. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

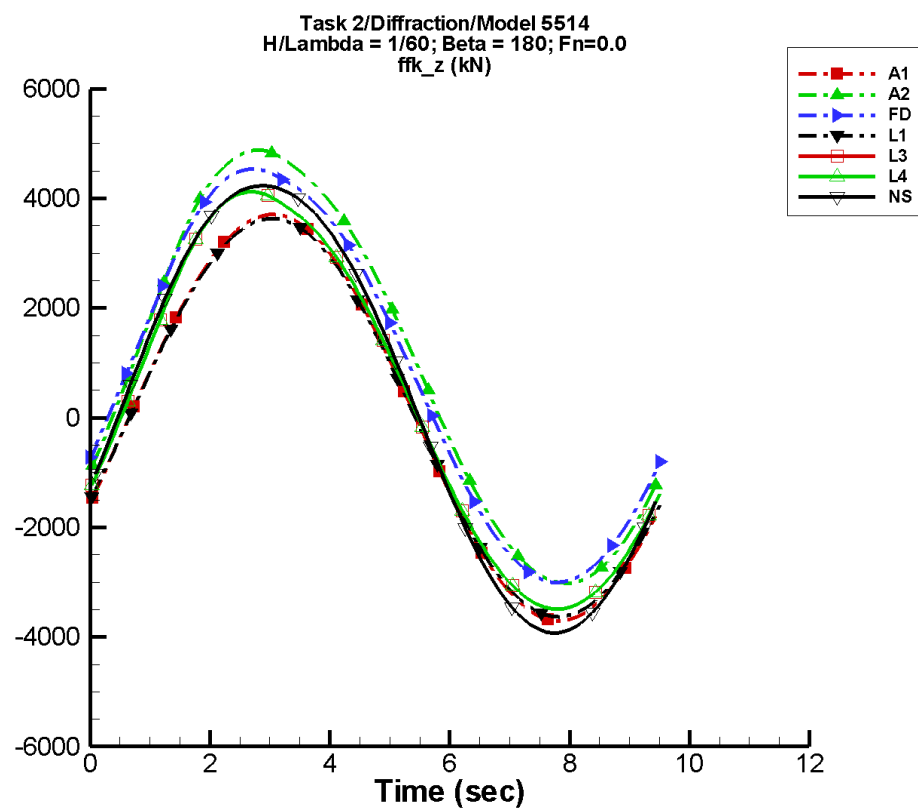
Table H-1231. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-29.2	6.24E+04	-19	60.1	-45
A2	-4.47E+04	2.13E+05	43	1.03E+05	-127
FD	1.13E+04	2.47E+04	32	2.72E+03	108
L1	-0.890	6.19E+04	-18	3.61	79
L3	2.02E+03	1.93E+04	46	2.30E+03	122
L4	2.02E+03	1.93E+04	46	2.30E+03	122
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1232. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.24E+04	6.24E+04	-6.17E+04	6.17E+04
A2	1.09E+04	1.36E+04	1.09E+04	1.36E+04
FD	-1.30E+04	3.49E+04	-1.24E+04	3.42E+04
L1	-6.19E+04	6.19E+04	-6.16E+04	6.16E+04
L3	-1.74E+04	2.35E+04	-1.70E+04	2.29E+04
L4	-1.74E+04	2.35E+04	-1.70E+04	2.29E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-617. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1233. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

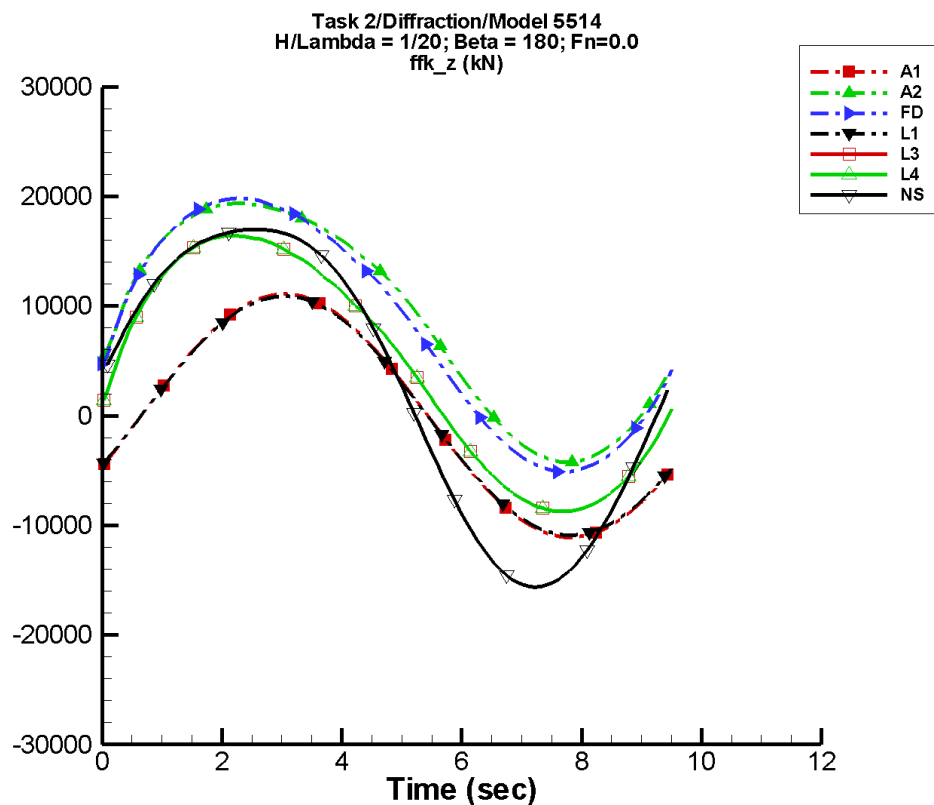
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.910	3.71E+03	-30	3.19	-61
A2	921.	3.98E+03	-31	209.	-62
FD	797.	3.79E+03	-28	154.	-41
L1	-0.829	3.63E+03	-28	1.32	-38
L3	283.	3.83E+03	-26	171.	-63
L4	283.	3.83E+03	-26	171.	-63
NF	—	—	—	—	—
NS	266.	4.12E+03	-22	116.	13

Table H-1234. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.71E+03	3.71E+03	-3.67E+03	3.67E+03
A2	-3.02E+03	4.88E+03	-2.98E+03	4.83E+03
FD	-3.01E+03	4.54E+03	-2.96E+03	4.49E+03
L1	-3.63E+03	3.63E+03	-3.62E+03	3.64E+03
L3	-3.49E+03	4.12E+03	-3.48E+03	4.10E+03
L4	-3.49E+03	4.12E+03	-3.48E+03	4.10E+03
NF	—	—	—	—
NS	-3.92E+03	4.23E+03	-3.88E+03	4.20E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-618. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

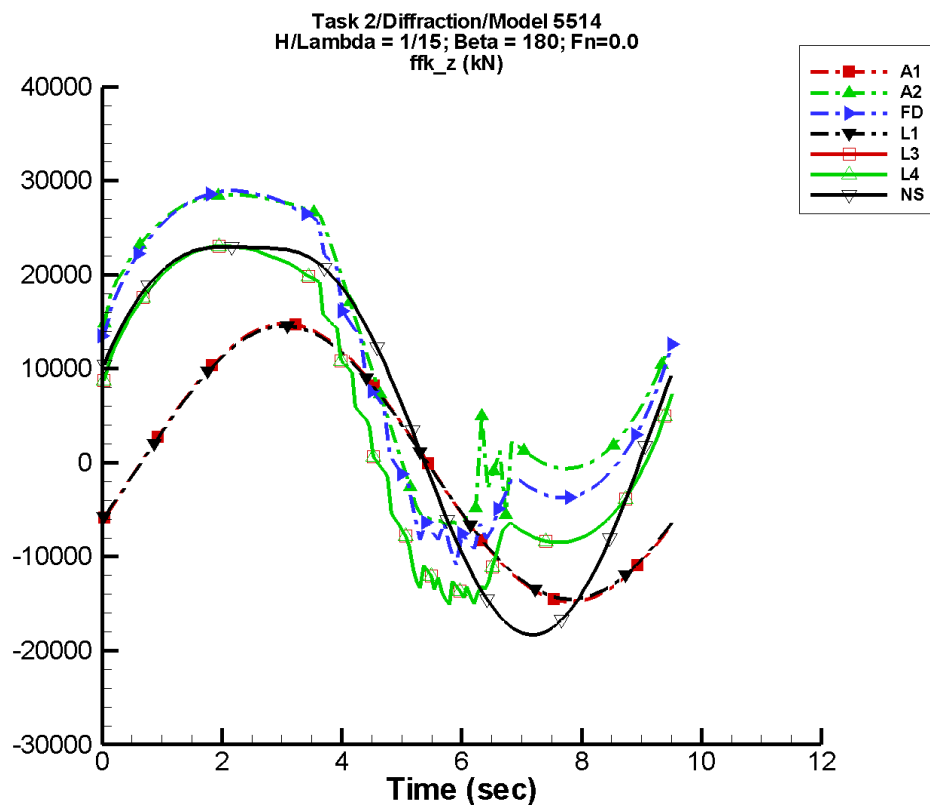
Table H-1235. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.72	1.11E+04	-30	9.56	-61
A2	8.58E+03	1.21E+04	-20	1.78E+03	1
FD	8.05E+03	1.27E+04	-17	1.75E+03	-1
L1	-2.49	1.09E+04	-28	3.96	-38
L3	4.30E+03	1.28E+04	-13	1.75E+03	-3
L4	4.30E+03	1.28E+04	-13	1.75E+03	-3
NF	—	—	—	—	—
NS	2.57E+03	1.66E+04	-3	1.93E+03	84

Table H-1236. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.11E+04	1.11E+04	-1.10E+04	1.10E+04
A2	-4.23E+03	1.94E+04	-4.09E+03	1.93E+04
FD	-5.12E+03	1.98E+04	-4.97E+03	1.97E+04
L1	-1.09E+04	1.09E+04	-1.09E+04	1.09E+04
L3	-8.73E+03	1.64E+04	-8.68E+03	1.64E+04
L4	-8.73E+03	1.64E+04	-8.68E+03	1.64E+04
NF	—	—	—	—
NS	-1.56E+04	1.70E+04	-1.54E+04	1.69E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-619. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

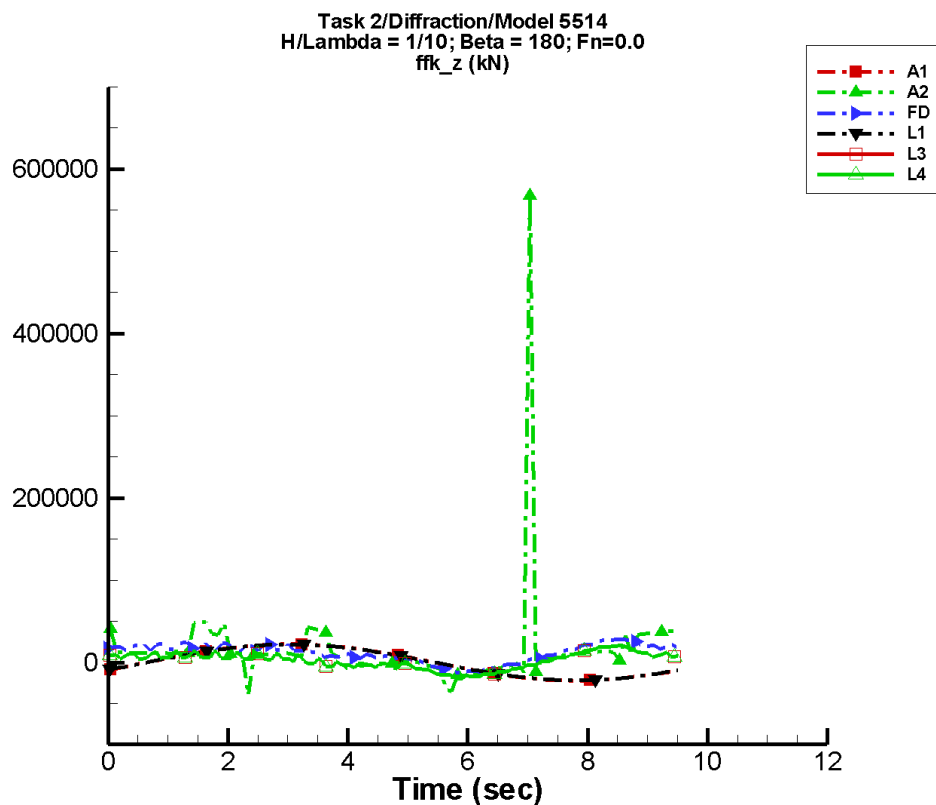
Table H-1237. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.62	1.48E+04	-30	12.7	-61
A2	1.20E+04	1.76E+04	9	2.38E+03	-122
FD	1.05E+04	1.94E+04	7	2.04E+03	-134
L1	-3.32	1.45E+04	-28	5.28	-38
L3	4.80E+03	1.87E+04	12	2.03E+03	-116
L4	4.80E+03	1.87E+04	12	2.03E+03	-116
NF	—	—	—	—	—
NS	6.02E+03	2.12E+04	0	3.80E+03	85

Table H-1238. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.48E+04	1.48E+04	-1.46E+04	1.46E+04
A2	-6.56E+03	2.85E+04	-6.14E+03	2.85E+04
FD	-1.09E+04	2.90E+04	-8.53E+03	2.88E+04
L1	-1.45E+04	1.45E+04	-1.45E+04	1.46E+04
L3	-1.51E+04	2.30E+04	-1.40E+04	2.30E+04
L4	-1.51E+04	2.30E+04	-1.40E+04	2.30E+04
NF	—	—	—	—
NS	-1.83E+04	2.30E+04	-1.81E+04	2.31E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-620. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

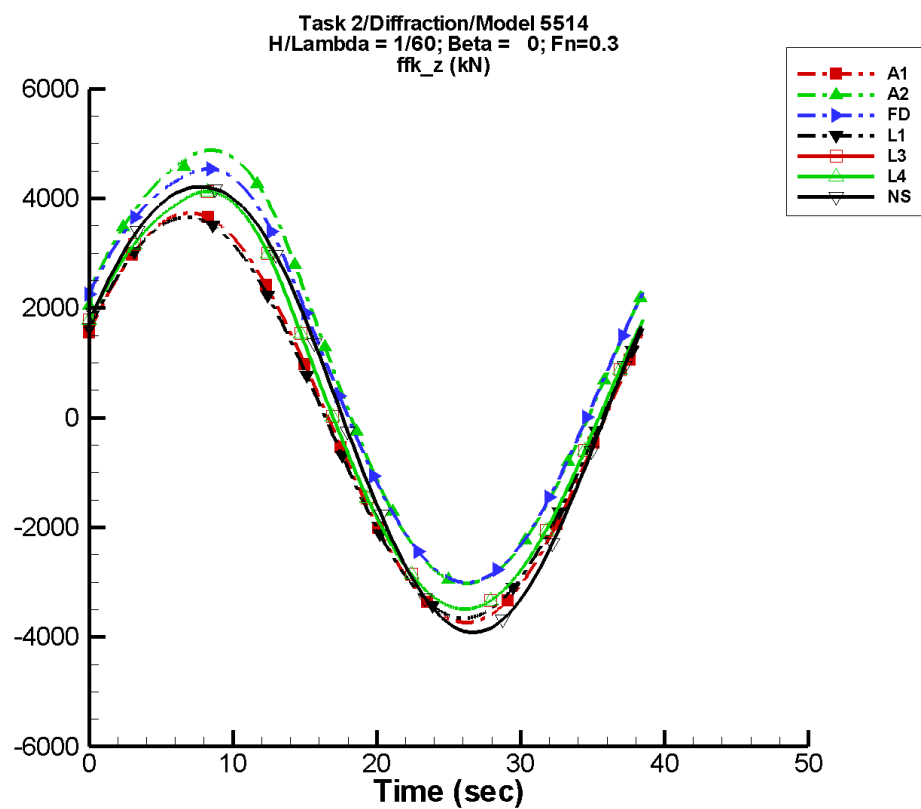
Table H-1239. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.45	2.22E+04	-30	19.1	-61
A2	1.61E+04	1.38E+04	90	1.21E+04	-119
FD	1.13E+04	1.32E+04	56	5.55E+03	174
L1	-4.98	2.18E+04	-28	7.92	-38
L3	2.29E+03	1.13E+04	67	5.80E+03	-178
L4	2.29E+03	1.13E+04	67	5.80E+03	-178
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1240. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.22E+04	2.22E+04	-2.20E+04	2.20E+04
A2	-4.01E+04	5.67E+05	-2.19E+04	7.31E+04
FD	-1.32E+04	2.82E+04	-1.03E+04	2.60E+04
L1	-2.18E+04	2.18E+04	-2.17E+04	2.18E+04
L3	-1.98E+04	2.03E+04	-1.78E+04	1.93E+04
L4	-1.98E+04	2.03E+04	-1.78E+04	1.93E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-621. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1241. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

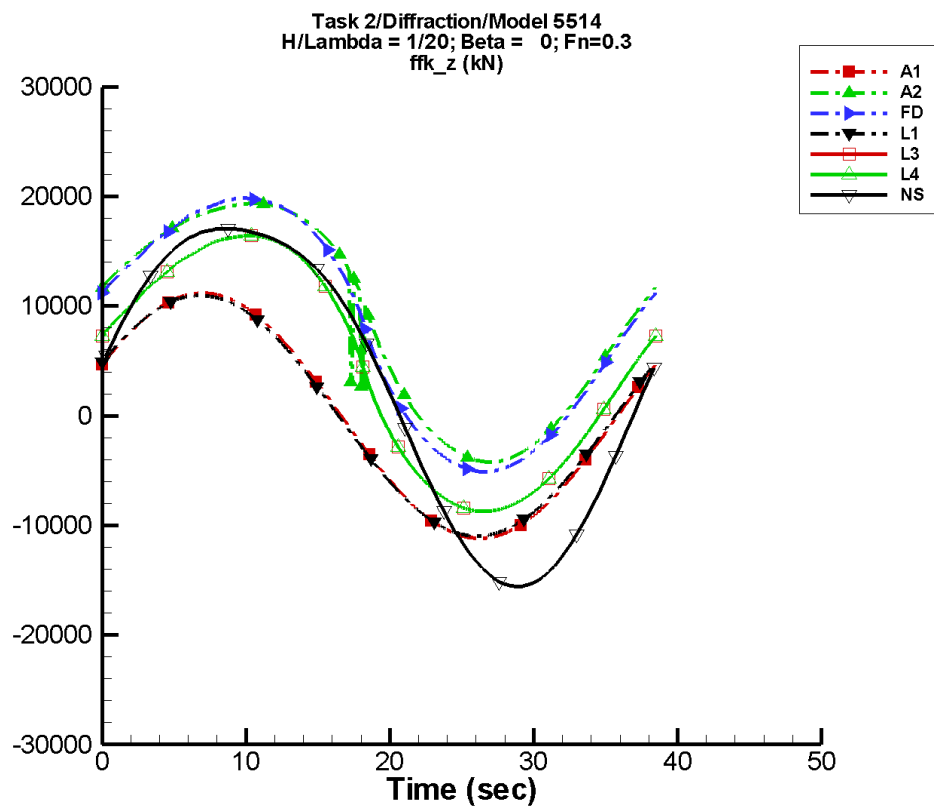
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.00	3.74E+03	30	5.78	-178
A2	926.	3.96E+03	26	201.	-135
FD	801.	3.79E+03	30	145.	-135
L1	2.74	3.66E+03	29	8.25	-157
L3	286.	3.82E+03	27	159.	-119
L4	286.	3.82E+03	27	159.	-119
NF	—	—	—	—	—
NS	269.	4.11E+03	21	129.	150

Table H-1242. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.74E+03	3.74E+03	-3.73E+03	3.73E+03
A2	-3.02E+03	4.88E+03	-3.02E+03	4.88E+03
FD	-3.01E+03	4.54E+03	-3.00E+03	4.54E+03
L1	-3.66E+03	3.66E+03	-3.66E+03	3.66E+03
L3	-3.49E+03	4.12E+03	-3.49E+03	4.12E+03
L4	-3.49E+03	4.12E+03	-3.49E+03	4.12E+03
NF	—	—	—	—
NS	-3.92E+03	4.21E+03	-3.88E+03	4.18E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-622. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

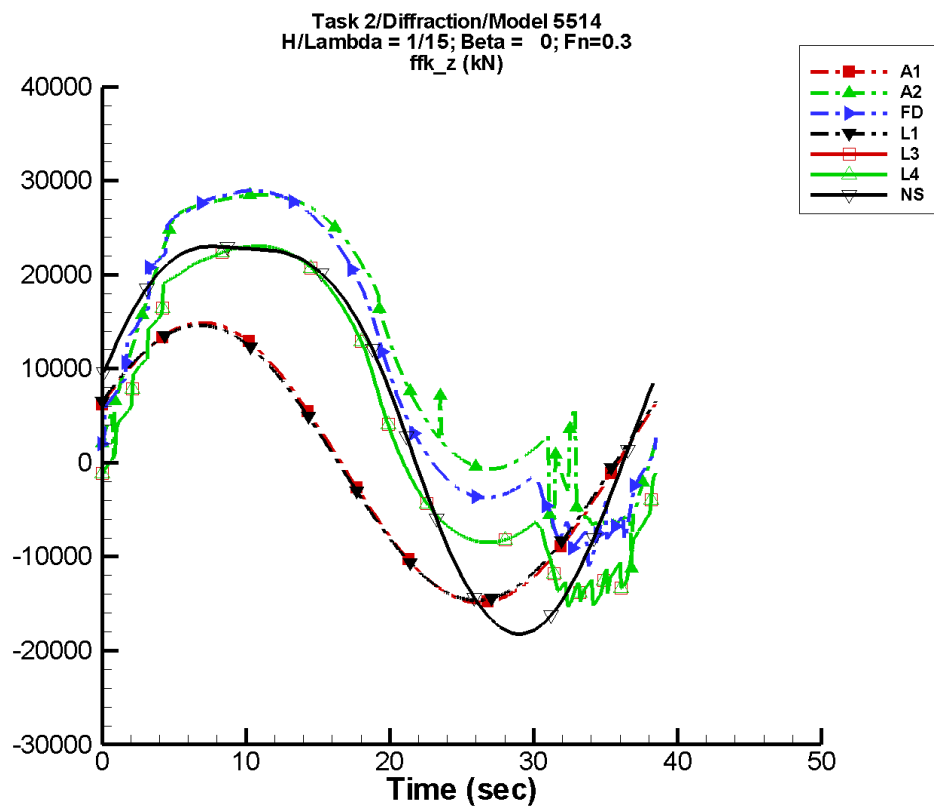
Table H-1243. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	12.0	1.12E+04	30	17.3	-178
A2	8.53E+03	1.20E+04	16	1.68E+03	168
FD	8.02E+03	1.27E+04	19	1.70E+03	-170
L1	8.22	1.10E+04	29	24.7	-157
L3	4.30E+03	1.28E+04	15	1.66E+03	-172
L4	4.30E+03	1.28E+04	15	1.66E+03	-172
NF	—	—	—	—	—
NS	2.59E+03	1.66E+04	2	1.93E+03	86

Table H-1244. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.12E+04	1.12E+04	-1.12E+04	1.12E+04
A2	-4.23E+03	1.94E+04	-4.22E+03	1.94E+04
FD	-5.12E+03	1.98E+04	-5.11E+03	1.98E+04
L1	-1.10E+04	1.10E+04	-1.10E+04	1.10E+04
L3	-8.73E+03	1.64E+04	-8.72E+03	1.64E+04
L4	-8.73E+03	1.64E+04	-8.72E+03	1.64E+04
NF	—	—	—	—
NS	-1.56E+04	1.70E+04	-1.54E+04	1.71E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-623. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

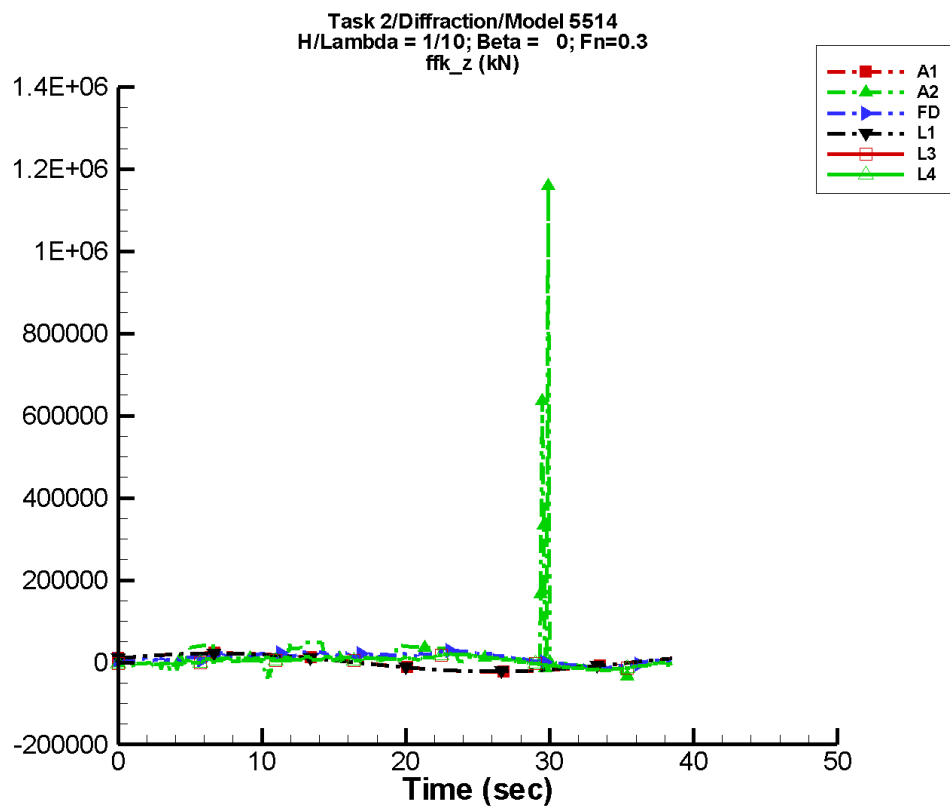
Table H-1245. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	15.9	1.49E+04	30	23.0	-178
A2	1.20E+04	1.75E+04	-11	2.81E+03	-57
FD	1.04E+04	1.91E+04	-4	2.36E+03	-59
L1	11.0	1.46E+04	29	33.0	-157
L3	4.79E+03	1.88E+04	-9	2.71E+03	-63
L4	4.79E+03	1.88E+04	-9	2.71E+03	-63
NF	—	—	—	—	—
NS	6.04E+03	2.11E+04	0	3.78E+03	87

Table H-1246. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.49E+04	1.49E+04	-1.49E+04	1.49E+04
A2	-1.13E+04	2.85E+04	-6.50E+03	2.85E+04
FD	-1.10E+04	2.90E+04	-9.62E+03	2.90E+04
L1	-1.46E+04	1.46E+04	-1.46E+04	1.46E+04
L3	-1.54E+04	2.30E+04	-1.47E+04	2.30E+04
L4	-1.54E+04	2.30E+04	-1.47E+04	2.30E+04
NF	—	—	—	—
NS	-1.82E+04	2.30E+04	-1.80E+04	2.30E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-624. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

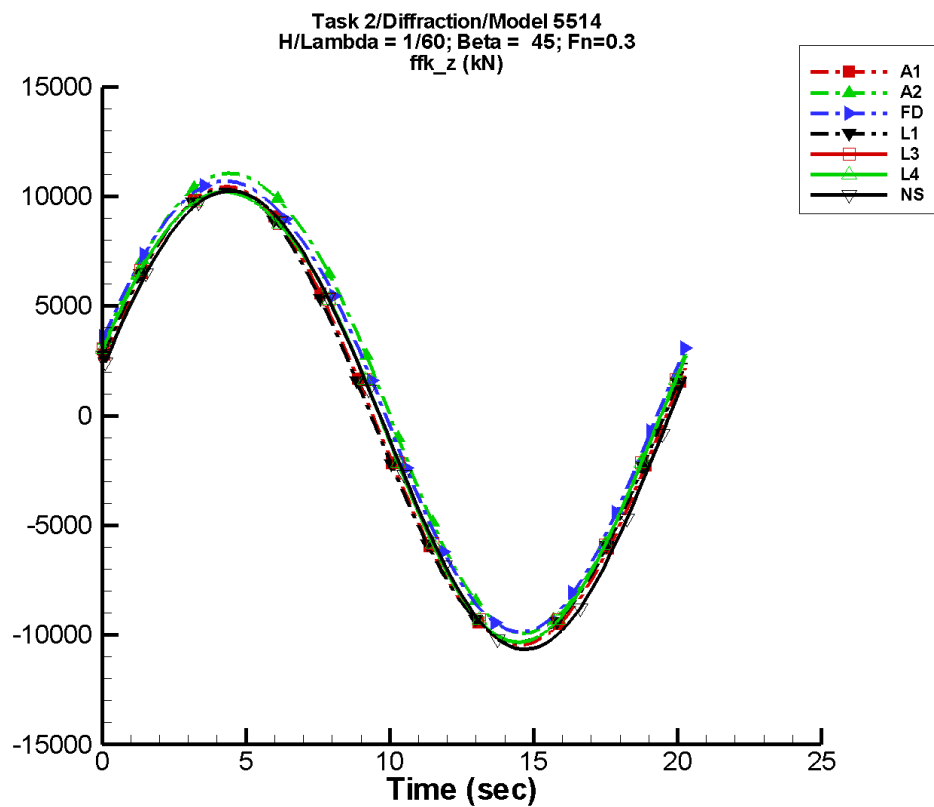
Table H-1247. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	23.9	2.24E+04	30	34.6	-178
A2	1.59E+04	1.32E+04	-103	1.11E+04	-55
FD	1.11E+04	1.34E+04	-54	6.43E+03	11
L1	16.4	2.19E+04	29	49.5	-157
L3	2.22E+03	1.12E+04	-67	5.99E+03	5
L4	2.22E+03	1.12E+04	-67	5.99E+03	5
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1248. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.24E+04	2.24E+04	-2.23E+04	2.23E+04
A2	-4.03E+04	1.16E+06	-2.74E+04	2.57E+05
FD	-1.35E+04	2.86E+04	-1.26E+04	2.81E+04
L1	-2.19E+04	2.19E+04	-2.19E+04	2.19E+04
L3	-1.99E+04	2.03E+04	-1.98E+04	2.01E+04
L4	-1.99E+04	2.03E+04	-1.98E+04	2.01E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-625. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1249. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

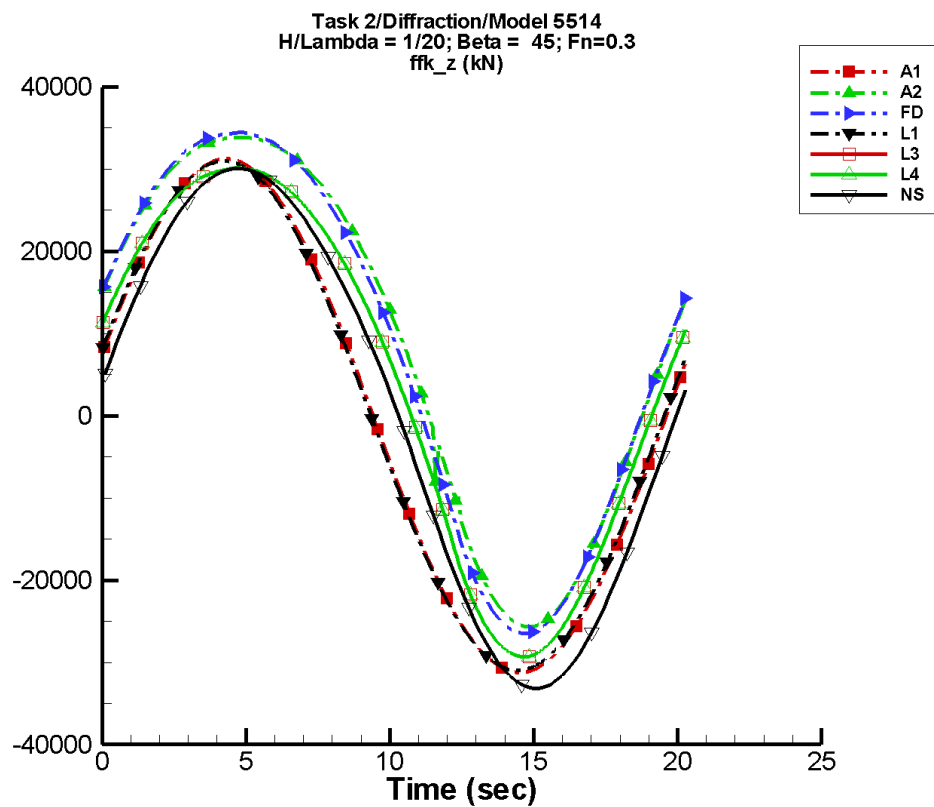
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-15.8	1.04E+04	5	22.9	-29
A2	910.	1.05E+04	2	358.	97
FD	796.	1.03E+04	1	392.	90
L1	2.04	1.03E+04	11	6.41	88
L3	292.	1.03E+04	10	386.	111
L4	292.	1.03E+04	10	386.	111
NF	—	—	—	—	—
NS	-18.0	1.05E+04	9	196.	90

Table H-1250. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.04E+04	1.04E+04	-1.04E+04	1.04E+04
A2	-9.91E+03	1.11E+04	-9.89E+03	1.10E+04
FD	-9.87E+03	1.07E+04	-9.84E+03	1.07E+04
L1	-1.03E+04	1.03E+04	-1.03E+04	1.03E+04
L3	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
L4	-1.03E+04	1.02E+04	-1.03E+04	1.02E+04
NF	—	—	—	—
NS	-1.07E+04	1.03E+04	-1.05E+04	1.02E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-626. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

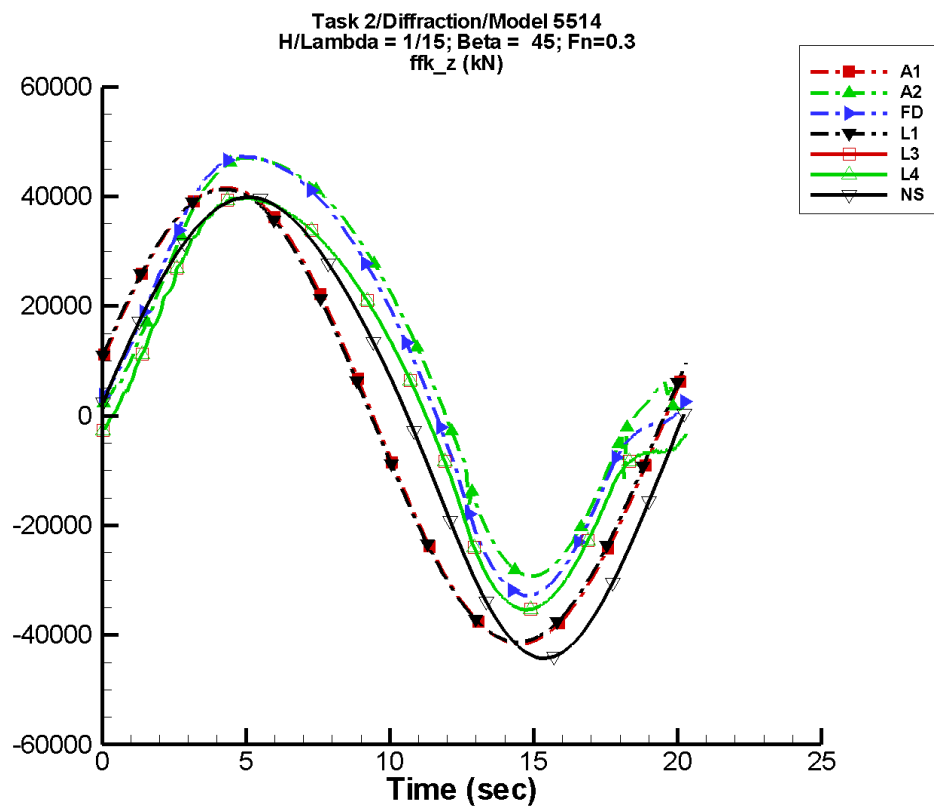
Table H-1251. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-47.2	3.12E+04	5	68.4	-29
A2	8.57E+03	2.95E+04	-4	4.39E+03	84
FD	7.98E+03	3.02E+04	-5	4.02E+03	83
L1	6.13	3.10E+04	11	19.2	88
L3	4.26E+03	2.94E+04	3	3.86E+03	100
L4	4.26E+03	2.94E+04	3	3.86E+03	100
NF	—	—	—	—	—
NS	350.	3.14E+04	2	2.00E+03	84

Table H-1252. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.12E+04	3.12E+04	-3.12E+04	3.12E+04
A2	-2.57E+04	3.39E+04	-2.55E+04	3.39E+04
FD	-2.65E+04	3.45E+04	-2.64E+04	3.44E+04
L1	-3.10E+04	3.10E+04	-3.09E+04	3.09E+04
L3	-2.93E+04	3.01E+04	-2.93E+04	3.01E+04
L4	-2.93E+04	3.01E+04	-2.93E+04	3.01E+04
NF	—	—	—	—
NS	-3.32E+04	3.01E+04	-3.28E+04	3.02E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-627. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

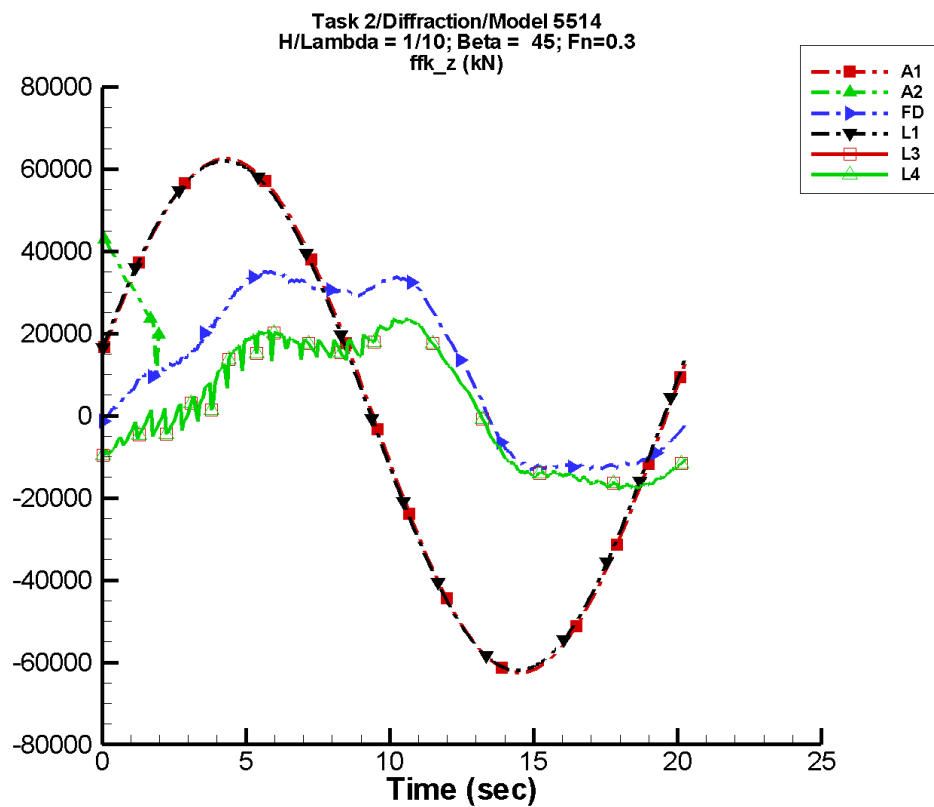
Table H-1253. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-62.9	4.16E+04	5	91.1	-29
A2	1.19E+04	3.52E+04	-13	4.34E+03	142
FD	1.00E+04	3.75E+04	-17	3.65E+03	138
L1	8.17	4.13E+04	11	25.6	88
L3	4.59E+03	3.51E+04	-10	2.77E+03	160
L4	4.59E+03	3.51E+04	-10	2.77E+03	160
NF	—	—	—	—	—
NS	564.	4.15E+04	-3	2.79E+03	77

Table H-1254. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.16E+04	4.16E+04	-4.15E+04	4.15E+04
A2	-2.93E+04	4.70E+04	-2.91E+04	4.70E+04
FD	-3.28E+04	4.74E+04	-3.26E+04	4.72E+04
L1	-4.13E+04	4.13E+04	-4.13E+04	4.13E+04
L3	-3.54E+04	3.97E+04	-3.53E+04	3.97E+04
L4	-3.54E+04	3.97E+04	-3.53E+04	3.97E+04
NF	—	—	—	—
NS	-4.42E+04	3.99E+04	-4.39E+04	4.00E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-628. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

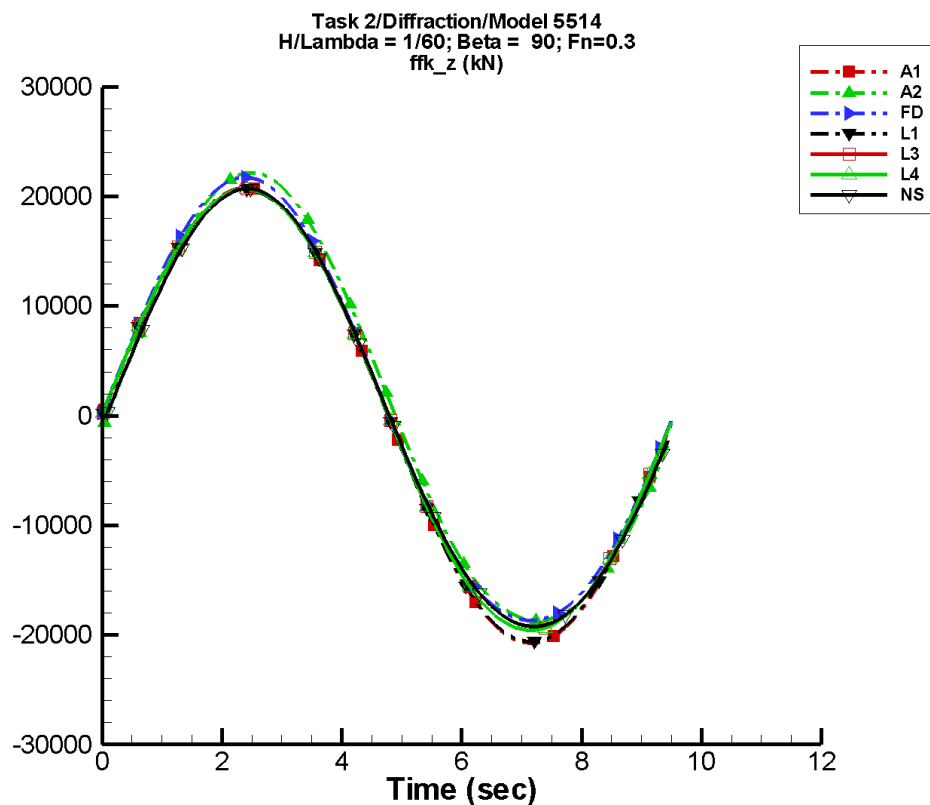
Table H-1255. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-94.5	6.25E+04	5	137.	-29
A2	5.86E+04	5.92E+04	-73	4.26E+04	115
FD	1.14E+04	2.49E+04	-50	3.24E+03	50
L1	12.2	6.20E+04	11	38.4	88
L3	2.07E+03	1.92E+04	-52	2.25E+03	42
L4	2.07E+03	1.92E+04	-52	2.25E+03	42
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1256. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.25E+04	6.25E+04	-6.23E+04	6.23E+04
A2	799.	4.56E+04	926.	4.21E+04
FD	-1.31E+04	3.50E+04	-1.25E+04	3.46E+04
L1	-6.19E+04	6.19E+04	-6.19E+04	6.19E+04
L3	-1.78E+04	2.35E+04	-1.72E+04	2.31E+04
L4	-1.78E+04	2.35E+04	-1.72E+04	2.31E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-629. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1257. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

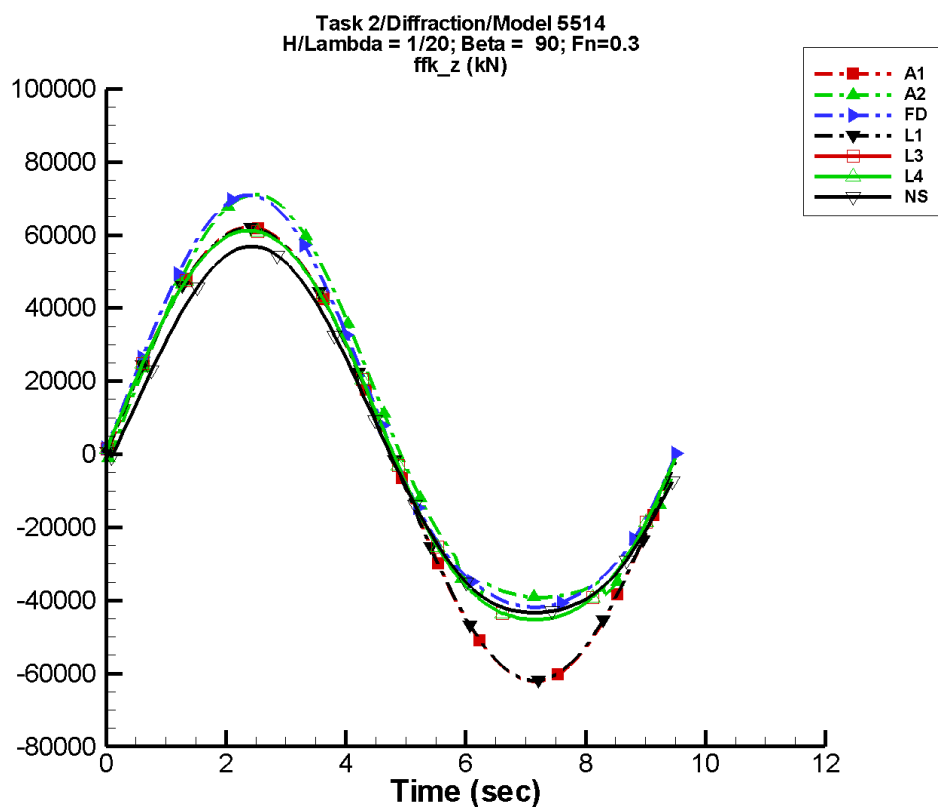
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-15.1	2.08E+04	-5	23.6	-28
A2	915.	2.06E+04	-9	767.	-105
FD	808.	2.03E+04	-6	662.	-101
L1	9.06	2.06E+04	-4	16.3	29
L3	304.	2.02E+04	-3	208.	-99
L4	304.	2.02E+04	-3	208.	-99
NF	—	—	—	—	—
NS	194.	2.00E+04	-2	519.	-94

Table H-1258. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.08E+04	2.08E+04	-2.05E+04	2.05E+04
A2	-1.87E+04	2.21E+04	-1.85E+04	2.19E+04
FD	-1.87E+04	2.17E+04	-1.85E+04	2.15E+04
L1	-2.06E+04	2.06E+04	-2.06E+04	2.05E+04
L3	-1.96E+04	2.07E+04	-1.95E+04	2.06E+04
L4	-1.96E+04	2.07E+04	-1.95E+04	2.06E+04
NF	—	—	—	—
NS	-1.92E+04	2.07E+04	-1.91E+04	2.05E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-630. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

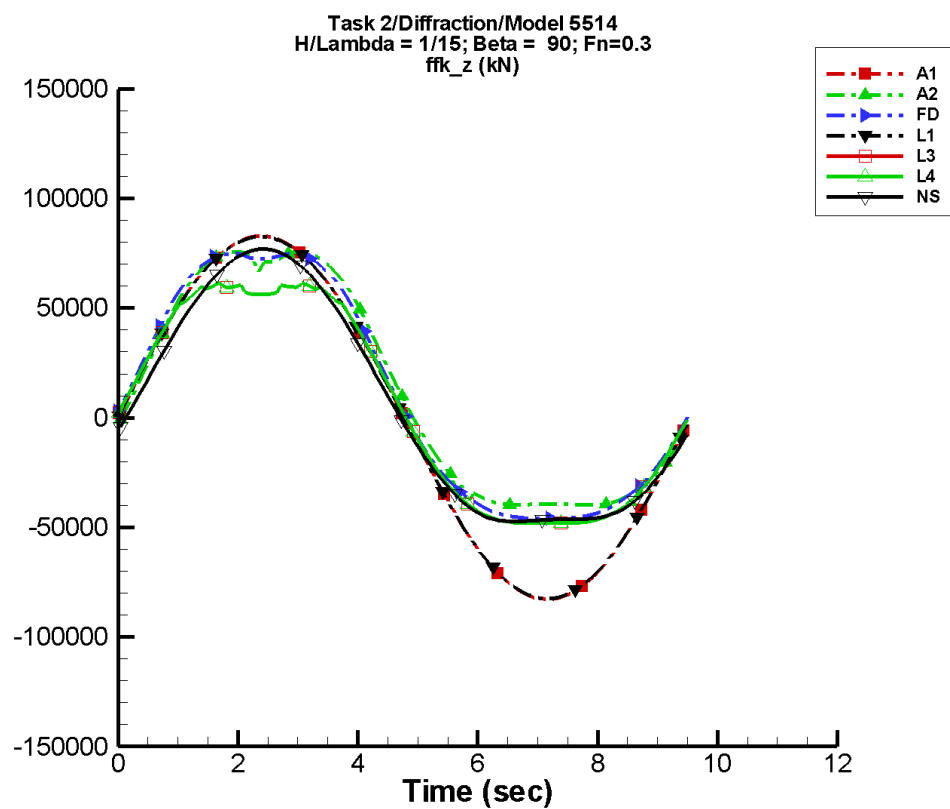
Table H-1259. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-45.2	6.22E+04	-5	70.6	-28
A2	8.32E+03	5.68E+04	-9	7.21E+03	-107
FD	8.08E+03	5.71E+04	-6	6.43E+03	-101
L1	27.2	6.19E+04	-4	48.9	29
L3	4.45E+03	5.45E+04	-3	3.43E+03	-100
L4	4.45E+03	5.45E+04	-3	3.43E+03	-100
NF	—	—	—	—	—
NS	1.93E+03	5.09E+04	-2	4.56E+03	-95

Table H-1260. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.22E+04	6.21E+04	-6.15E+04	6.14E+04
A2	-3.93E+04	7.10E+04	-3.89E+04	7.02E+04
FD	-4.19E+04	7.09E+04	-4.16E+04	7.01E+04
L1	-6.19E+04	6.19E+04	-6.17E+04	6.16E+04
L3	-4.53E+04	6.12E+04	-4.52E+04	6.10E+04
L4	-4.53E+04	6.12E+04	-4.52E+04	6.10E+04
NF	—	—	—	—
NS	-4.33E+04	5.69E+04	-4.31E+04	5.64E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-631. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

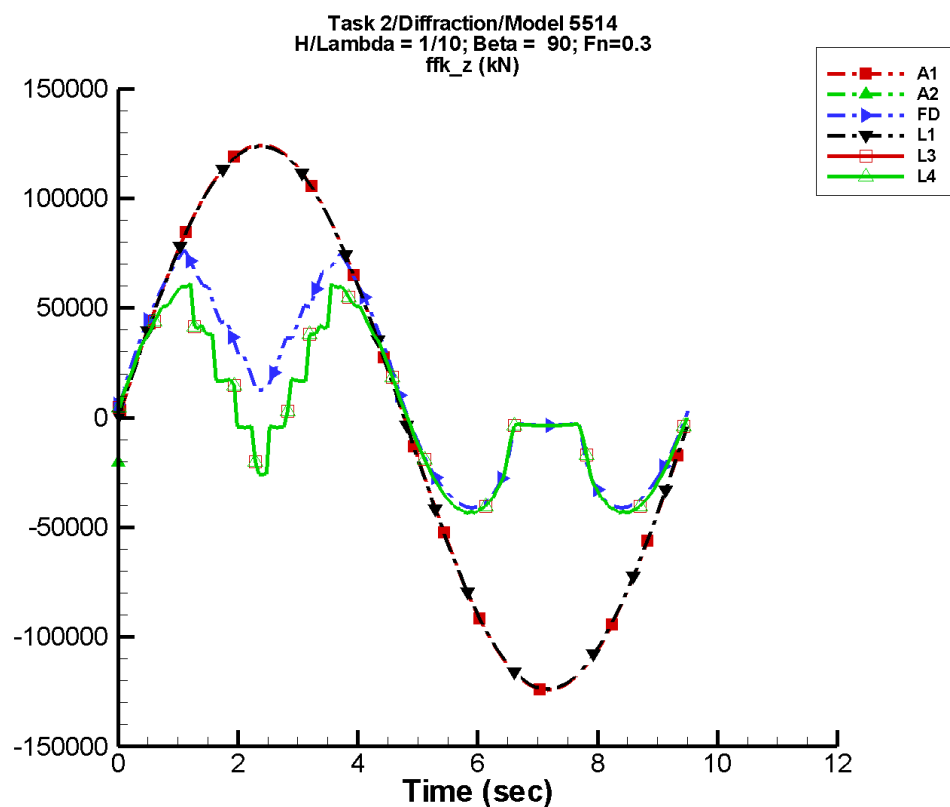
Table H-1261. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-60.2	8.28E+04	-5	93.9	-28
A2	1.20E+04	6.48E+04	-8	7.52E+03	-101
FD	1.07E+04	6.65E+04	-6	4.30E+03	-101
L1	36.2	8.25E+04	-4	65.2	29
L3	5.37E+03	6.03E+04	-3	1.34E+03	-131
L4	5.37E+03	6.03E+04	-3	1.34E+03	-131
NF	—	—	—	—	—
NS	4.74E+03	6.39E+04	-1	9.53E+03	-94

Table H-1262. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.28E+04	8.27E+04	-8.18E+04	8.18E+04
A2	-4.02E+04	7.58E+04	-3.96E+04	7.53E+04
FD	-4.60E+04	7.52E+04	-4.60E+04	7.38E+04
L1	-8.25E+04	8.25E+04	-8.22E+04	8.22E+04
L3	-4.81E+04	6.17E+04	-4.81E+04	6.02E+04
L4	-4.81E+04	6.17E+04	-4.81E+04	6.02E+04
NF	—	—	—	—
NS	-4.73E+04	7.69E+04	-4.71E+04	7.65E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-632. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

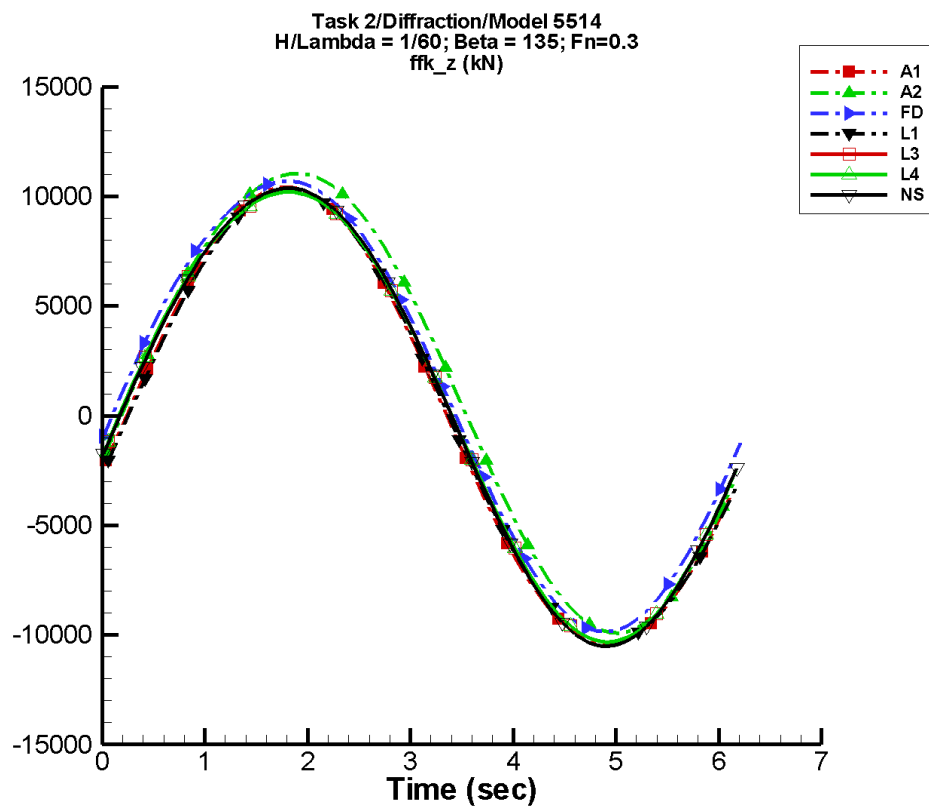
Table H-1263. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-90.4	1.24E+05	-5	141.	-28
A2	3.32E+04	1.33E+05	102	3.02E+04	100
FD	1.34E+04	4.30E+04	-5	6.10E+03	77
L1	54.4	1.24E+05	-4	97.8	29
L3	5.10E+03	2.71E+04	6	8.37E+03	113
L4	5.10E+03	2.71E+04	6	8.37E+03	113
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1264. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.24E+05	1.24E+05	-1.23E+05	1.23E+05
A2	-2.04E+04	-1.19E+04	-2.04E+04	-1.19E+04
FD	-4.11E+04	7.67E+04	-3.90E+04	6.73E+04
L1	-1.24E+05	1.24E+05	-1.23E+05	1.23E+05
L3	-4.34E+04	6.13E+04	-4.25E+04	5.60E+04
L4	-4.34E+04	6.13E+04	-4.25E+04	5.60E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-633. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1265. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

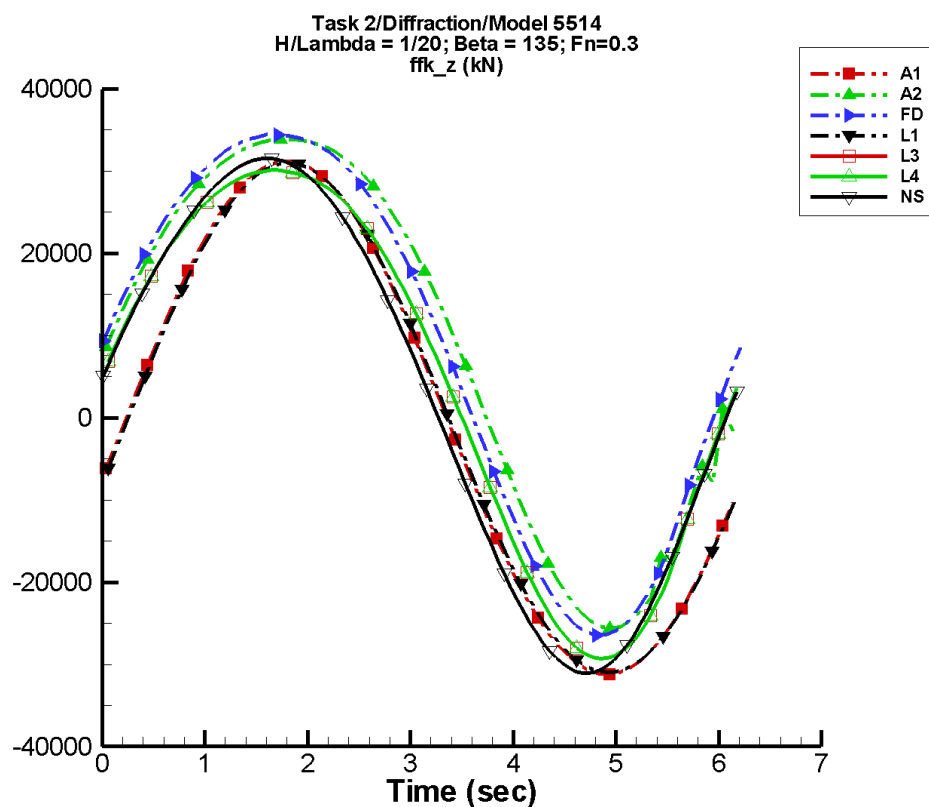
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.84	1.04E+04	-21	14.1	-48
A2	923.	1.05E+04	-25	392.	31
FD	815.	1.03E+04	-34	415.	21
L1	-2.92	1.03E+04	-25	13.0	-62
L3	288.	1.03E+04	-23	376.	36
L4	288.	1.03E+04	-23	376.	36
NF	—	—	—	—	—
NS	249.	1.04E+04	-14	341.	67

Table H-1266. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.04E+04	1.04E+04	-1.02E+04	1.02E+04
A2	-9.91E+03	1.10E+04	-9.61E+03	1.08E+04
FD	-9.86E+03	1.07E+04	-9.56E+03	1.05E+04
L1	-1.03E+04	1.03E+04	-1.02E+04	1.02E+04
L3	-1.03E+04	1.02E+04	-1.02E+04	1.01E+04
L4	-1.03E+04	1.02E+04	-1.02E+04	1.01E+04
NF	—	—	—	—
NS	-1.05E+04	1.04E+04	-1.04E+04	1.03E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-634. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

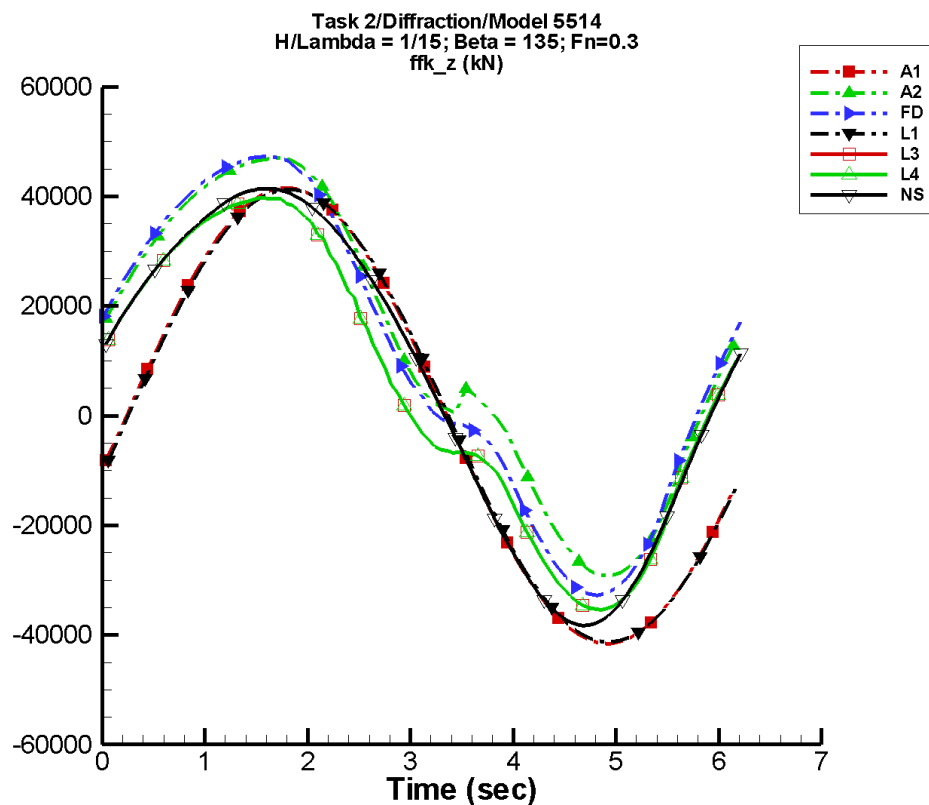
Table H-1267. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-20.5	3.12E+04	-21	42.3	-48
A2	8.49E+03	2.95E+04	-20	4.36E+03	47
FD	8.06E+03	3.01E+04	-29	3.97E+03	30
L1	-8.76	3.10E+04	-25	38.9	-62
L3	4.25E+03	2.93E+04	-17	3.95E+03	52
L4	4.25E+03	2.93E+04	-17	3.95E+03	52
NF	—	—	—	—	—
NS	2.41E+03	3.08E+04	-2	2.28E+03	89

Table H-1268. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.12E+04	3.12E+04	-3.04E+04	3.04E+04
A2	-2.57E+04	3.39E+04	-2.43E+04	3.35E+04
FD	-2.65E+04	3.45E+04	-2.53E+04	3.40E+04
L1	-3.10E+04	3.10E+04	-3.07E+04	3.07E+04
L3	-2.93E+04	3.01E+04	-2.89E+04	2.99E+04
L4	-2.93E+04	3.01E+04	-2.89E+04	2.99E+04
NF	—	—	—	—
NS	-3.11E+04	3.15E+04	-3.06E+04	3.12E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-635. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

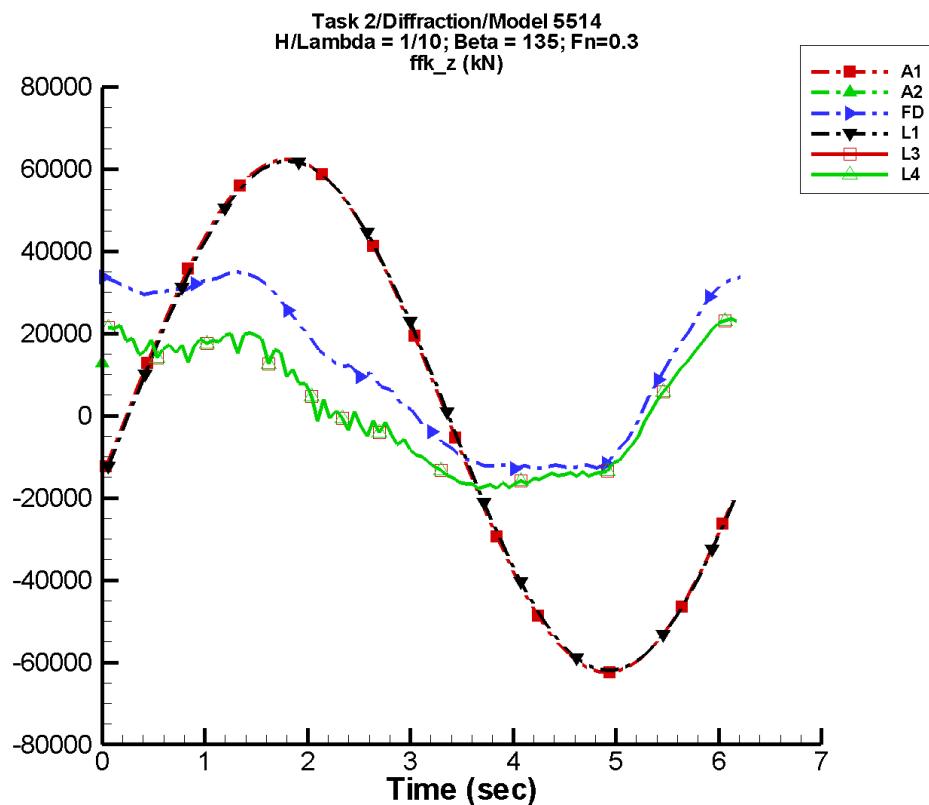
Table H-1269. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-27.3	4.16E+04	-21	56.3	-48
A2	1.16E+04	3.48E+04	-6	4.03E+03	1
FD	1.03E+04	3.70E+04	-17	3.56E+03	-27
L1	-11.7	4.13E+04	-25	51.8	-62
L3	4.64E+03	3.47E+04	-5	3.43E+03	3
L4	4.64E+03	3.47E+04	-5	3.43E+03	3
NF	—	—	—	—	—
NS	5.70E+03	3.87E+04	1	4.25E+03	94

Table H-1270. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.16E+04	4.15E+04	-4.05E+04	4.05E+04
A2	-2.93E+04	4.70E+04	-2.75E+04	4.61E+04
FD	-3.28E+04	4.74E+04	-3.10E+04	4.64E+04
L1	-4.13E+04	4.13E+04	-4.09E+04	4.09E+04
L3	-3.54E+04	3.97E+04	-3.48E+04	3.94E+04
L4	-3.54E+04	3.97E+04	-3.48E+04	3.94E+04
NF	—	—	—	—
NS	-3.83E+04	4.14E+04	-3.79E+04	4.12E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-636. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

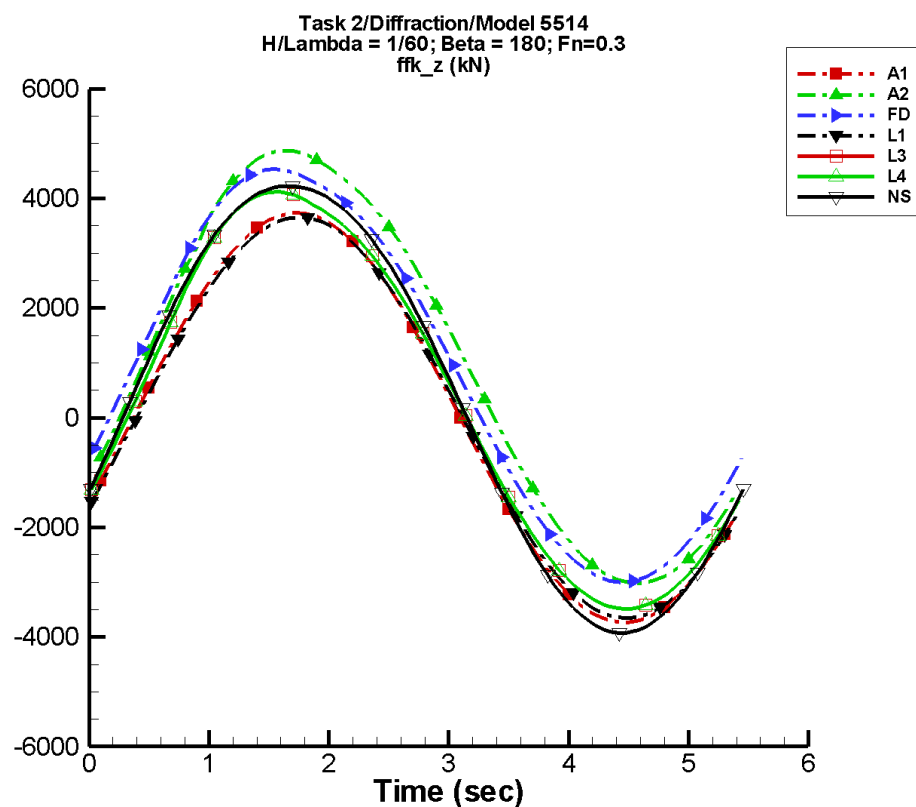
Table H-1271. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-41.0	6.25E+04	-21	84.5	-48
A2	1.58E+04	1.73E+04	-95	2.84E+04	99
FD	1.14E+04	2.45E+04	17	2.46E+03	70
L1	-17.5	6.20E+04	-25	77.7	-62
L3	1.90E+03	1.89E+04	39	2.97E+03	109
L4	1.90E+03	1.89E+04	39	2.97E+03	109
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1272. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.24E+04	6.24E+04	-6.08E+04	6.08E+04
A2	8.52E+03	1.28E+04	8.52E+03	1.28E+04
FD	-1.29E+04	3.50E+04	-1.27E+04	3.34E+04
L1	-6.19E+04	6.19E+04	-6.14E+04	6.14E+04
L3	-1.78E+04	2.36E+04	-1.71E+04	2.22E+04
L4	-1.78E+04	2.36E+04	-1.71E+04	2.22E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-637. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1273. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

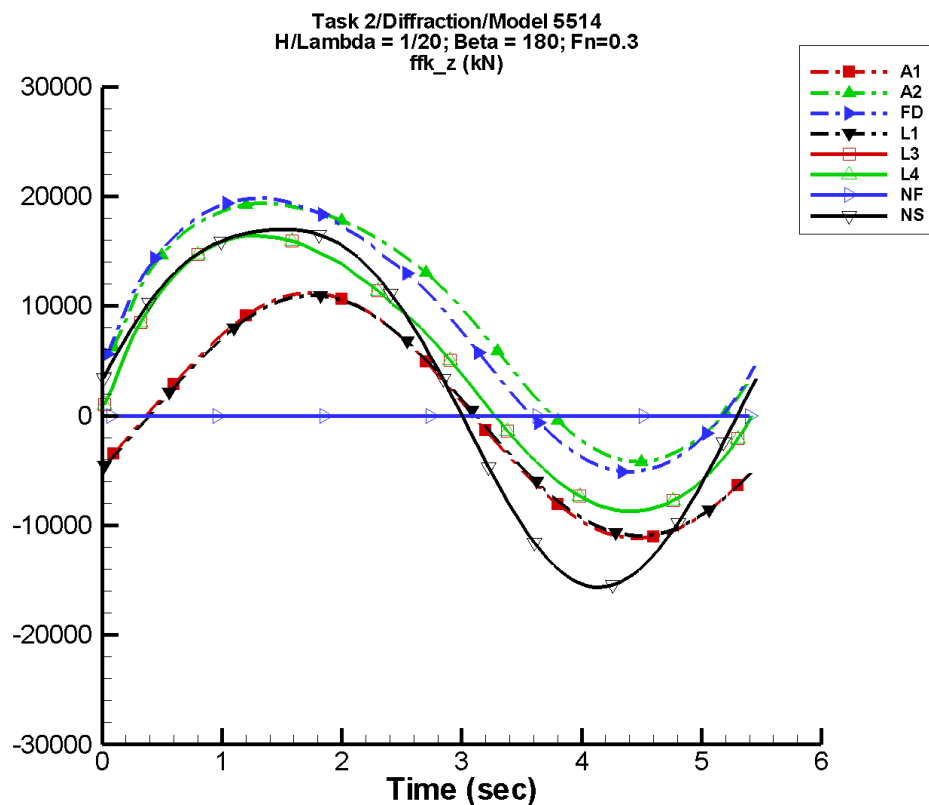
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.819	3.73E+03	-18	6.84	139
A2	918.	3.97E+03	-22	187.	-45
FD	797.	3.79E+03	70	119.	155
L1	-8.37	3.66E+03	-3	9.54	-123
L3	269.	3.84E+03	-1	155.	-11
L4	269.	3.84E+03	-1	155.	-11
NF	—	—	—	—	—
NS	270.	4.12E+03	-21	113.	19

Table H-1274. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.73E+03	3.73E+03	-3.61E+03	3.60E+03
A2	-3.02E+03	4.87E+03	-2.89E+03	4.74E+03
FD	-3.01E+03	4.54E+03	-2.88E+03	4.42E+03
L1	-3.66E+03	3.66E+03	-3.61E+03	3.61E+03
L3	-3.49E+03	4.12E+03	-3.45E+03	4.07E+03
L4	-3.49E+03	4.12E+03	-3.45E+03	4.07E+03
NF	—	—	—	—
NS	-3.93E+03	4.23E+03	-3.88E+03	4.20E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-638. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

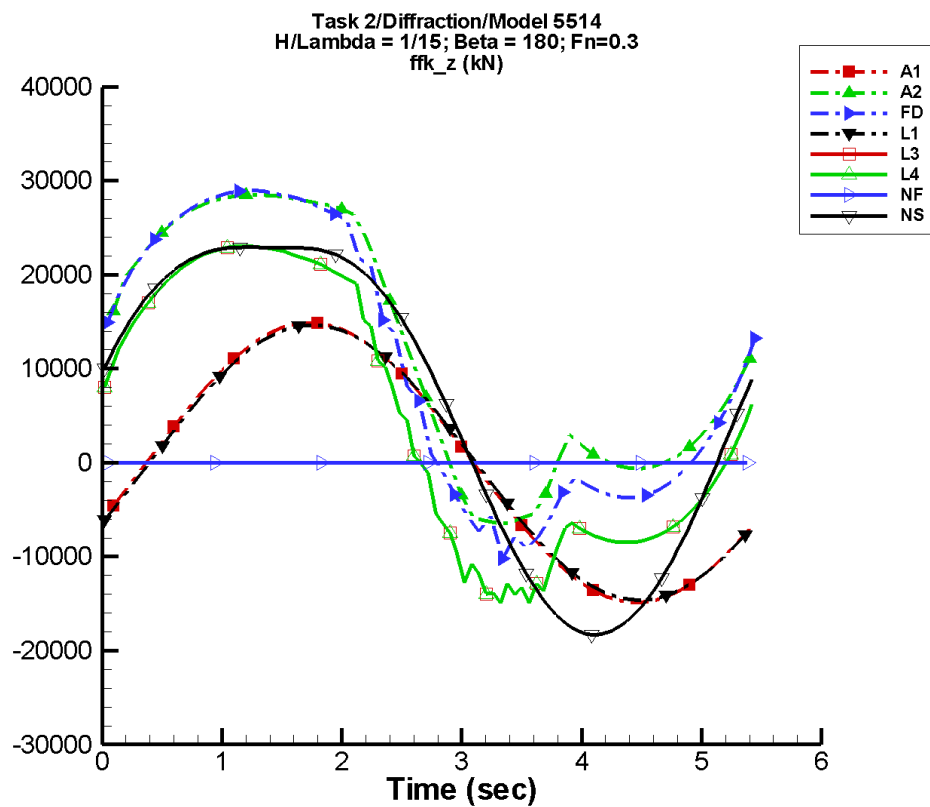
Table H-1275. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.45	1.12E+04	-18	20.5	139
A2	8.67E+03	1.21E+04	-10	1.89E+03	23
FD	8.02E+03	1.27E+04	81	1.61E+03	-168
L1	-25.1	1.10E+04	-3	28.6	-123
L3	4.28E+03	1.28E+04	12	1.61E+03	48
L4	4.28E+03	1.28E+04	12	1.61E+03	48
NF	—	—	—	—	—
NS	2.60E+03	1.66E+04	-2	1.95E+03	88

Table H-1276. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.12E+04	1.12E+04	-1.08E+04	1.08E+04
A2	-4.22E+03	1.94E+04	-3.76E+03	1.91E+04
FD	-5.12E+03	1.98E+04	-4.71E+03	1.95E+04
L1	-1.10E+04	1.10E+04	-1.08E+04	1.08E+04
L3	-8.72E+03	1.64E+04	-8.58E+03	1.63E+04
L4	-8.72E+03	1.64E+04	-8.58E+03	1.63E+04
NF	—	—	—	—
NS	-1.56E+04	1.70E+04	-1.54E+04	1.69E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-639. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

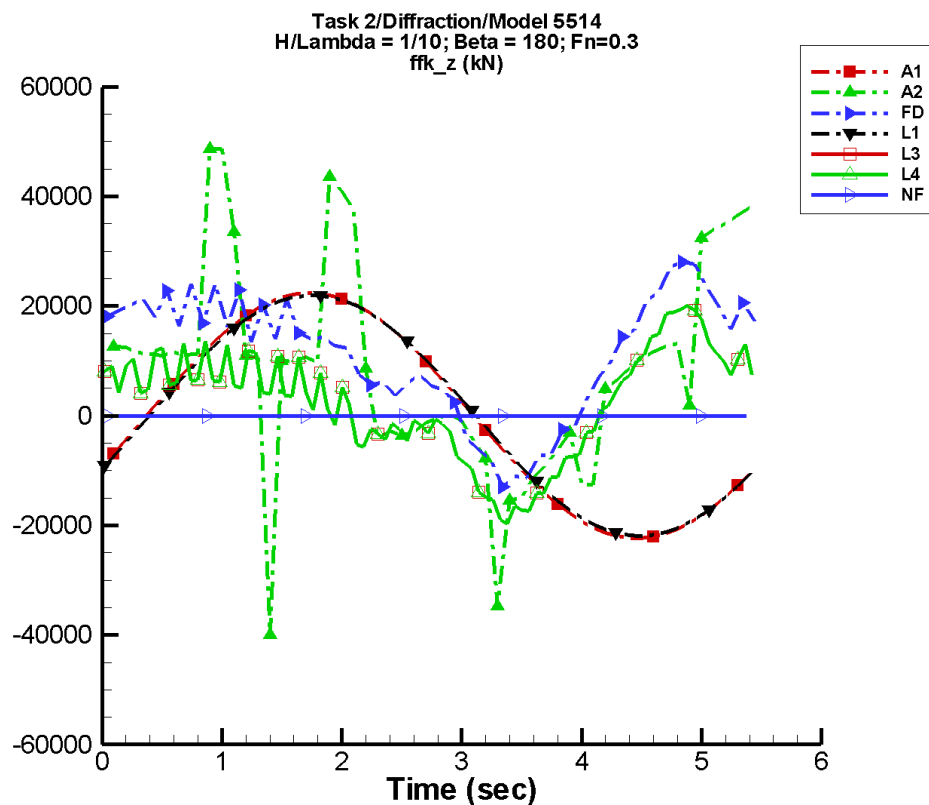
Table H-1277. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.26	1.49E+04	-18	27.3	139
A2	1.21E+04	1.78E+04	18	2.54E+03	-103
FD	1.03E+04	1.93E+04	105	2.67E+03	75
L1	-33.5	1.46E+04	-3	38.2	-123
L3	5.05E+03	1.86E+04	37	2.83E+03	-75
L4	5.05E+03	1.86E+04	37	2.83E+03	-75
NF	—	—	—	—	—
NS	6.07E+03	2.12E+04	1	3.83E+03	90

Table H-1278. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.49E+04	1.49E+04	-1.44E+04	1.44E+04
A2	-6.47E+03	2.85E+04	-4.92E+03	2.83E+04
FD	-1.02E+04	2.90E+04	-7.28E+03	2.87E+04
L1	-1.46E+04	1.46E+04	-1.44E+04	1.45E+04
L3	-1.52E+04	2.30E+04	-1.39E+04	2.30E+04
L4	-1.52E+04	2.30E+04	-1.39E+04	2.30E+04
NF	—	—	—	—
NS	-1.83E+04	2.29E+04	-1.81E+04	2.30E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-640. Time history of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

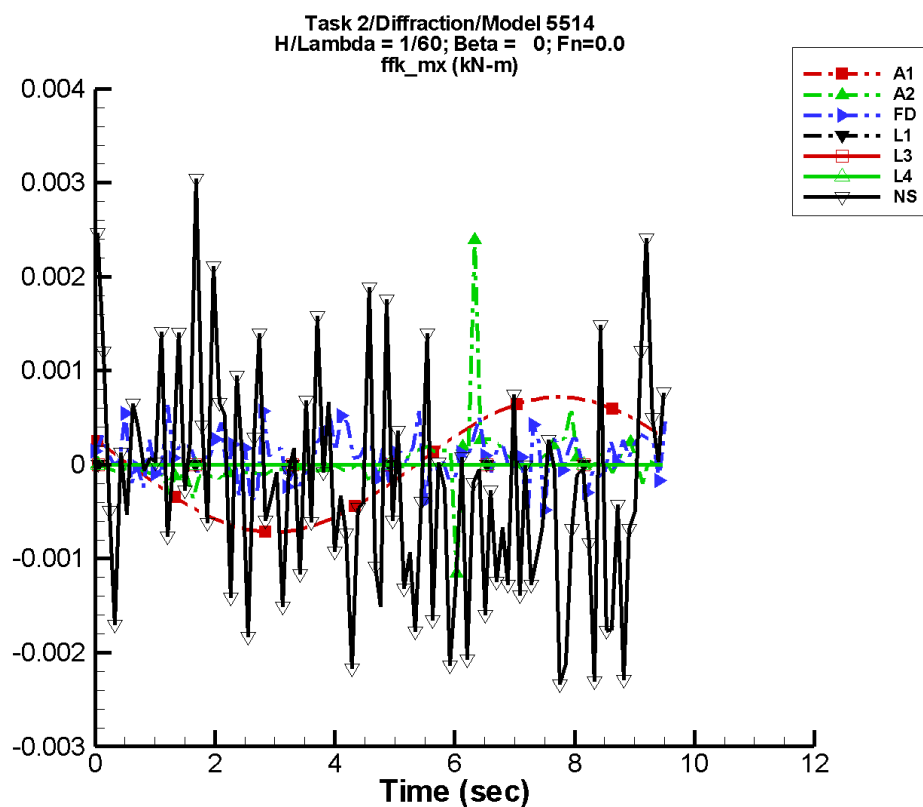
Table H-1279. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	4.90	2.23E+04	-18	40.9	139
A2	8.94E+03	1.57E+04	57	8.27E+03	179
FD	1.15E+04	1.31E+04	154	6.20E+03	5
L1	-50.2	2.20E+04	-3	57.3	-123
L3	2.16E+03	1.12E+04	91	5.45E+03	-136
L4	2.16E+03	1.12E+04	91	5.45E+03	-136
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1280. Minimum and maximum of  $F_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.23E+04	2.23E+04	-2.16E+04	2.16E+04
A2	-4.00E+04	4.87E+04	-1.25E+04	3.21E+04
FD	-1.35E+04	2.85E+04	-8.15E+03	2.36E+04
L1	-2.19E+04	2.19E+04	-2.17E+04	2.17E+04
L3	-1.98E+04	2.00E+04	-1.68E+04	1.75E+04
L4	-1.98E+04	2.00E+04	-1.68E+04	1.75E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-641. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1281. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

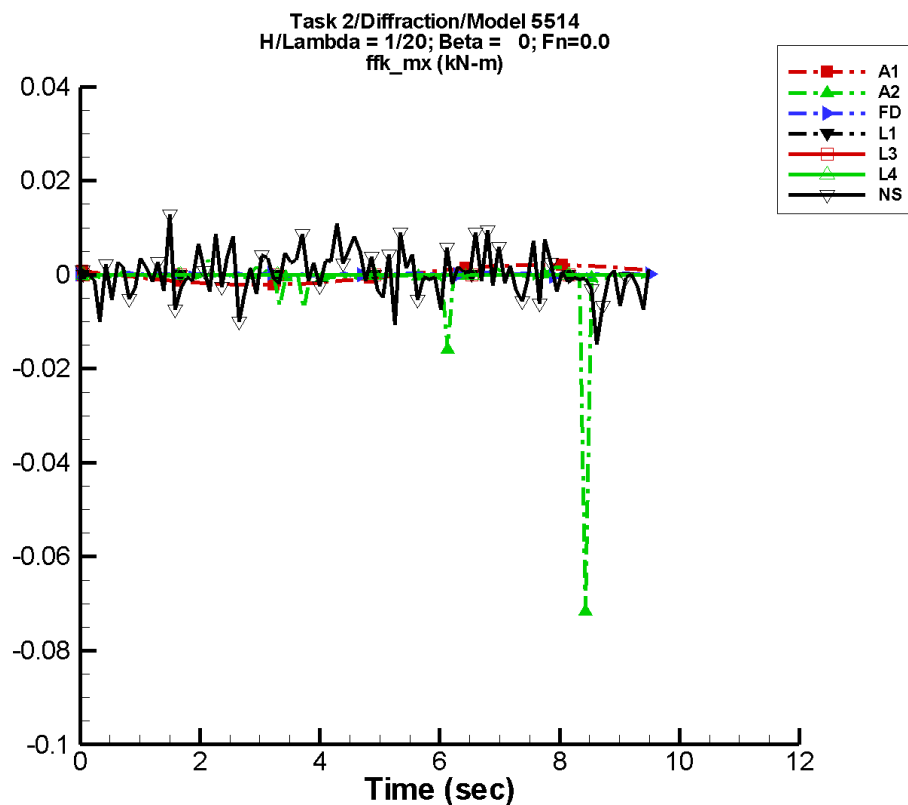
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.21E-07	7.18E-04	153	6.35E-07	124
A2	2.20E-05	1.68E-04	-174	2.39E-05	-81
FD	9.38E-05	3.41E-05	23	2.72E-05	61
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.91E-04	5.28E-04	20	1.06E-04	35

Table H-1282. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.18E-04	7.18E-04	-7.10E-04	7.10E-04
A2	-1.16E-03	2.39E-03	-1.72E-04	4.07E-04
FD	-5.66E-04	6.54E-04	-1.17E-05	2.79E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.84E-03	3.87E-03	-9.65E-04	1.35E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-642. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

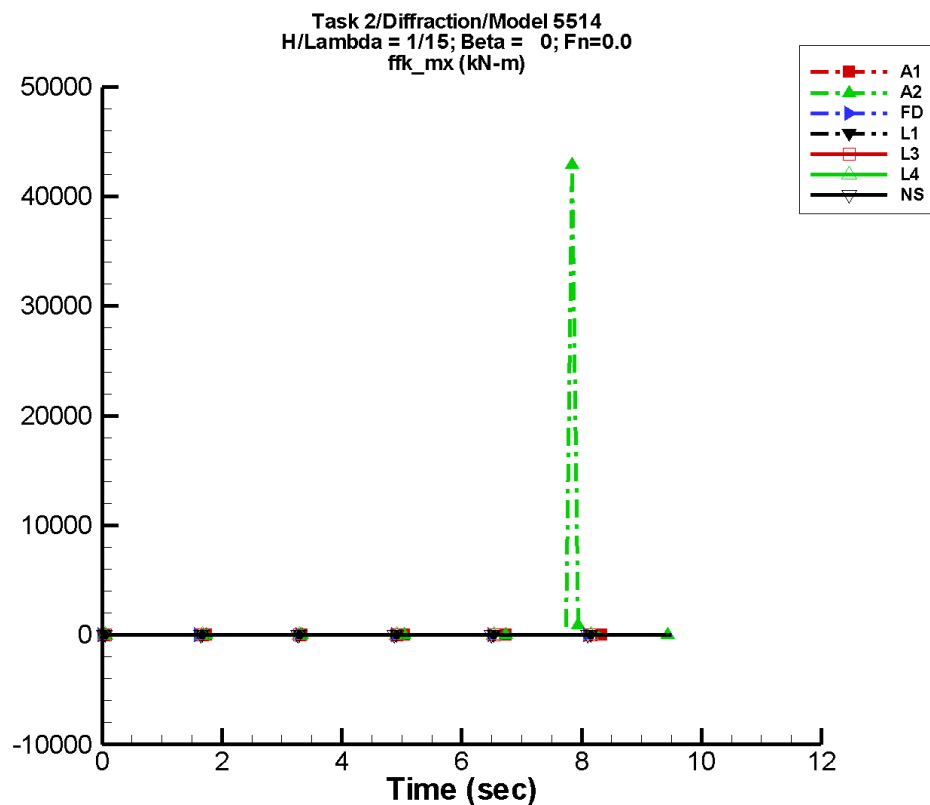
Table H-1283. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.61E-07	2.15E-03	153	1.90E-06	124
A2	-1.15E-03	1.03E-03	-40	1.36E-03	-21
FD	8.03E-05	4.98E-05	132	6.45E-05	-9
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.23E-04	1.91E-03	-75	4.05E-04	-101

Table H-1284. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.15E-03	2.15E-03	-2.12E-03	2.12E-03
A2	-7.16E-02	3.19E-03	-9.63E-03	9.70E-04
FD	-7.35E-04	6.38E-04	-1.09E-04	2.96E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.48E-02	1.28E-02	-4.16E-03	4.14E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-643. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

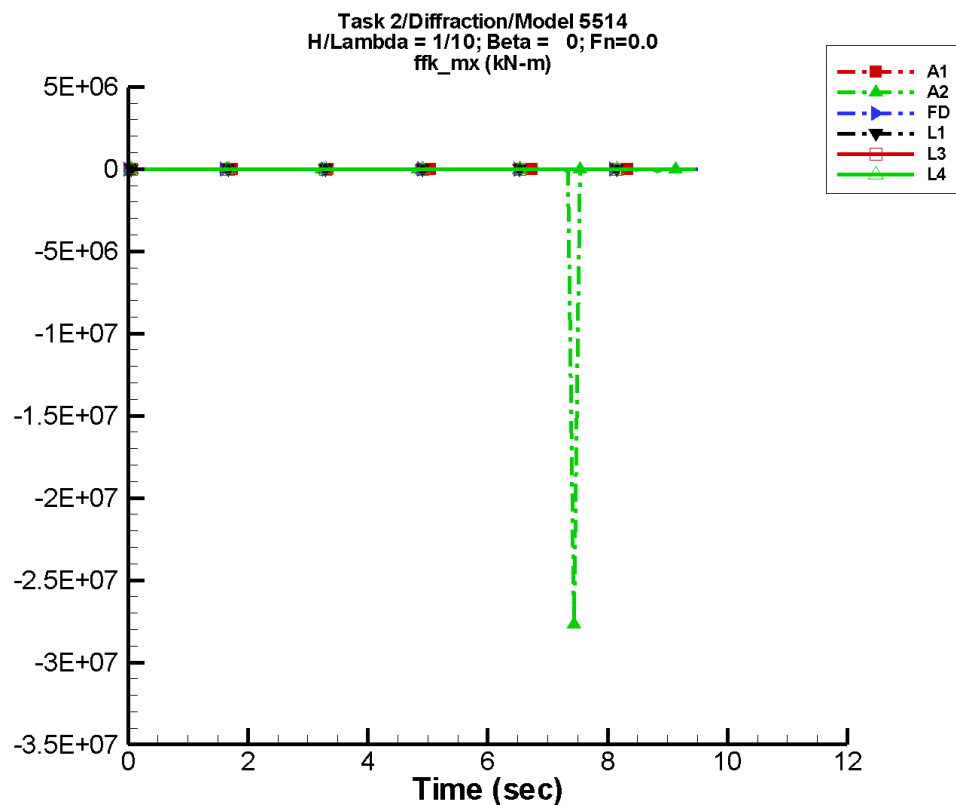
Table H-1285. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	8.81E-07	2.86E-03	153	2.53E-06	124
A2	501.	903.	145	870.	-148
FD	9.34E-05	3.39E-05	-155	7.25E-05	64
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.00E-04	1.73E-03	-50	6.04E-04	17

Table H-1286. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.86E-03	2.86E-03	-2.83E-03	2.83E-03
A2	-0.176	4.29E+04	-498.	5.87E+03
FD	-7.19E-04	1.01E-03	-2.49E-04	4.72E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.30E-02	2.99E-02	-8.80E-03	5.10E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-644. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

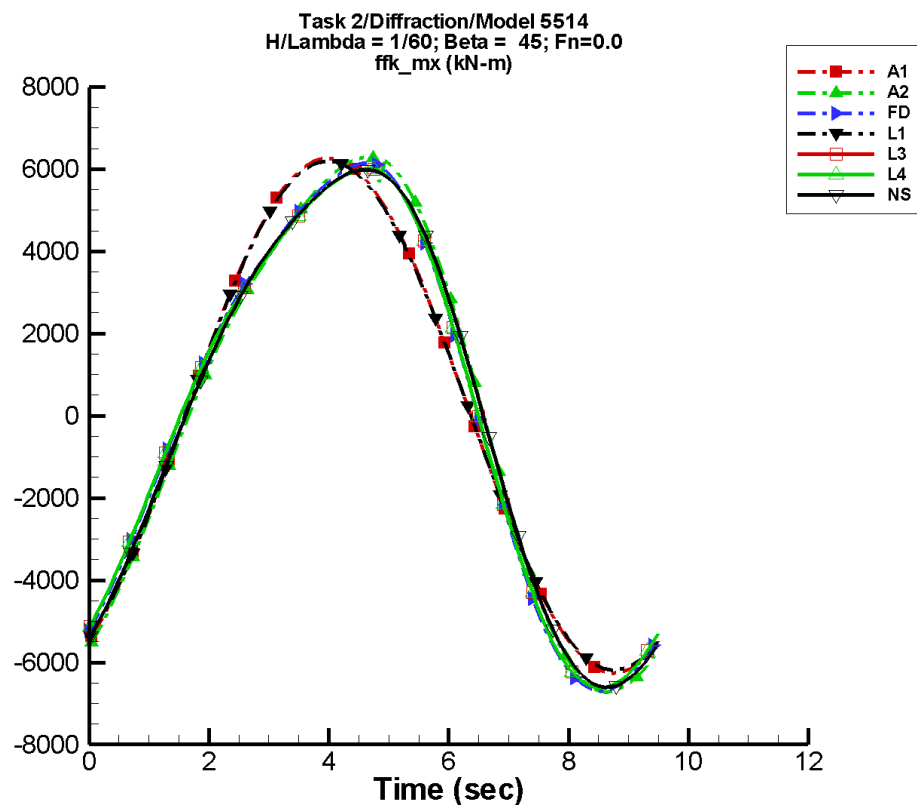
Table H-1287. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.32E-06	4.30E-03	153	3.80E-06	124
A2	-3.19E+05	5.79E+05	-21	5.40E+05	61
FD	-7.91E-05	1.76E-04	126	3.94E-04	-19
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1288. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.30E-03	4.30E-03	-4.25E-03	4.25E-03
A2	-2.77E+07	508.	-3.71E+06	3.17E+05
FD	-1.79E-03	1.25E-03	-1.21E-03	6.10E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-645. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1289. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

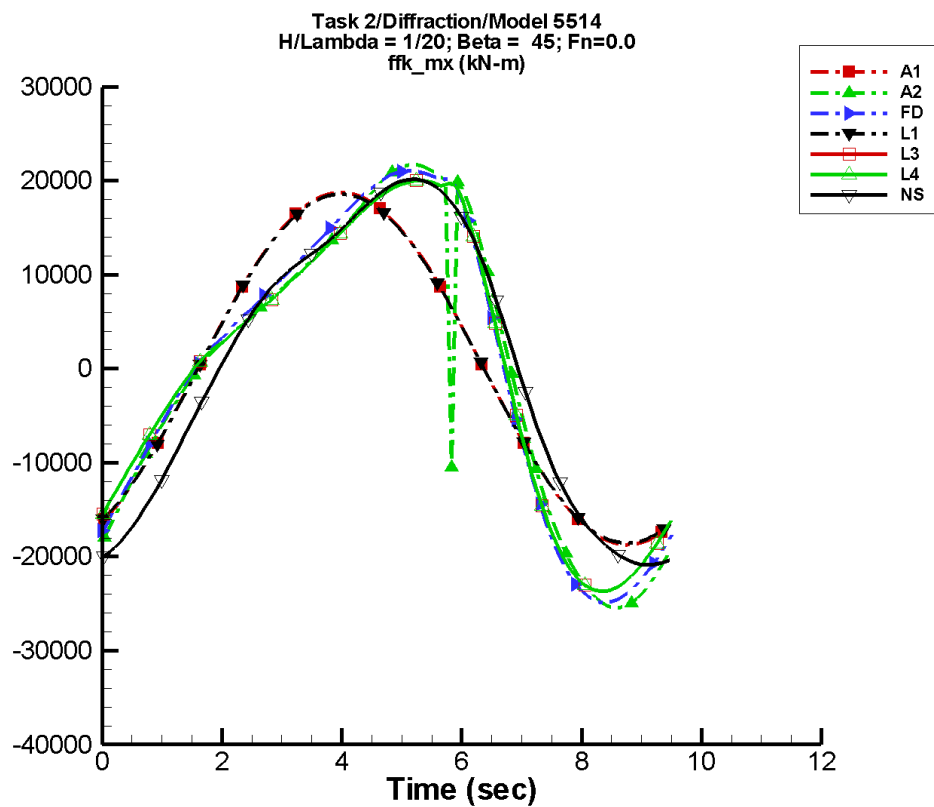
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.13	6.26E+03	-65	6.15	-123
A2	-9.52	6.43E+03	-72	759.	12
FD	-11.9	6.30E+03	-68	844.	13
L1	2.08	6.19E+03	-64	3.97	-111
L3	-6.02	6.21E+03	-67	848.	18
L4	-6.02	6.21E+03	-67	848.	18
NF	—	—	—	—	—
NS	18.8	6.26E+03	-66	746.	16

Table H-1290. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.26E+03	6.26E+03	-6.19E+03	6.19E+03
A2	-6.72E+03	6.28E+03	-6.63E+03	6.16E+03
FD	-6.69E+03	6.14E+03	-6.61E+03	6.07E+03
L1	-6.19E+03	6.19E+03	-6.16E+03	6.16E+03
L3	-6.62E+03	6.01E+03	-6.59E+03	5.98E+03
L4	-6.62E+03	6.01E+03	-6.59E+03	5.98E+03
NF	—	—	—	—
NS	-6.61E+03	5.99E+03	-6.53E+03	5.93E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-646. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

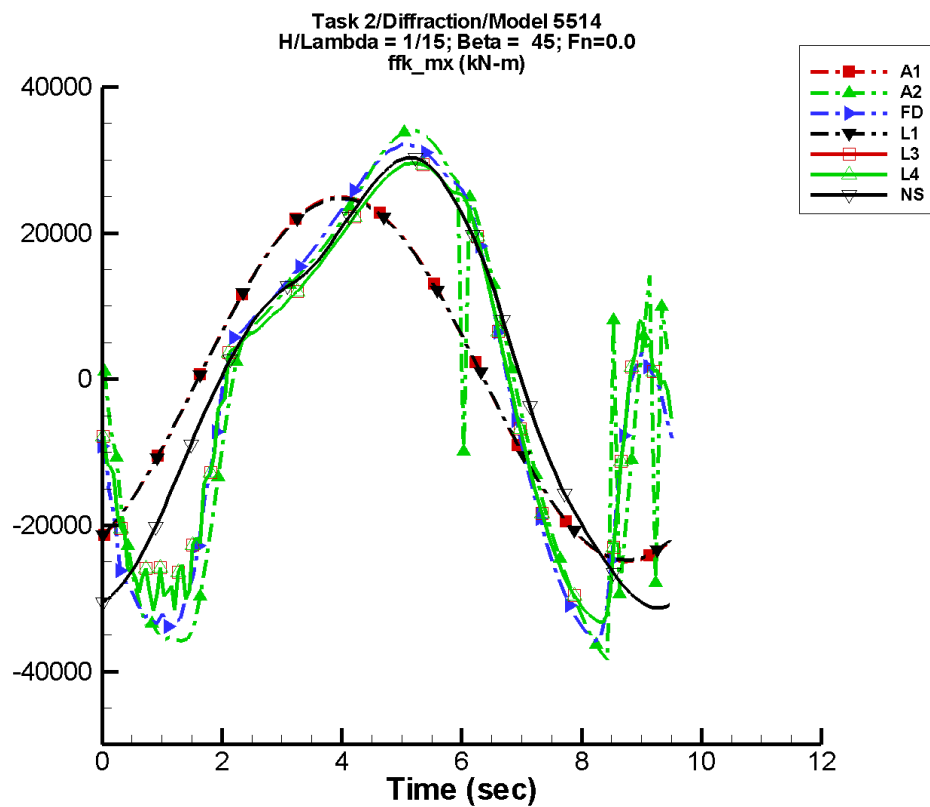
Table H-1291. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	9.37	1.87E+04	-65	18.4	-123
A2	-317.	2.07E+04	-77	6.32E+03	0
FD	-16.8	2.13E+04	-75	6.36E+03	6
L1	6.23	1.86E+04	-64	11.9	-111
L3	-51.1	1.97E+04	-74	6.71E+03	11
L4	-51.1	1.97E+04	-74	6.71E+03	11
NF	—	—	—	—	—
NS	81.2	2.03E+04	-81	3.16E+03	-10

Table H-1292. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E+04	1.87E+04	-1.85E+04	1.85E+04
A2	-2.54E+04	2.17E+04	-2.50E+04	2.14E+04
FD	-2.49E+04	2.11E+04	-2.45E+04	2.09E+04
L1	-1.86E+04	1.86E+04	-1.85E+04	1.85E+04
L3	-2.37E+04	2.00E+04	-2.36E+04	1.99E+04
L4	-2.37E+04	2.00E+04	-2.36E+04	1.99E+04
NF	—	—	—	—
NS	-2.09E+04	2.02E+04	-2.07E+04	1.99E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-647. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

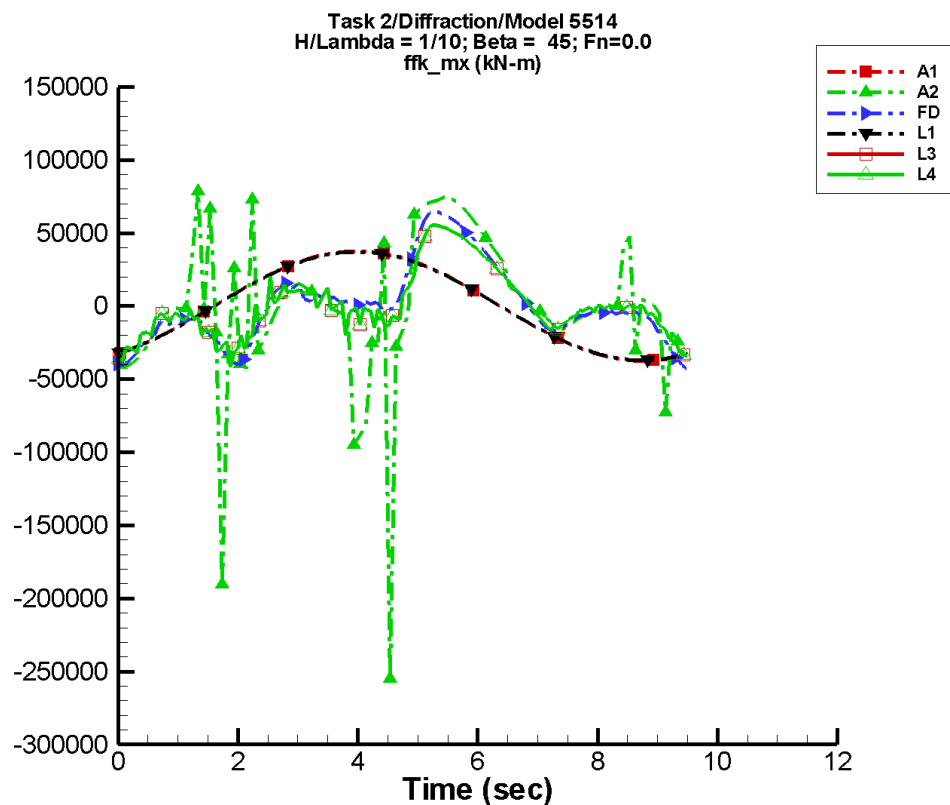
Table H-1293. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	12.5	2.49E+04	-65	24.5	-123
A2	-1.14E+03	2.84E+04	-98	1.04E+04	98
FD	-586.	2.86E+04	-91	5.66E+03	94
L1	8.30	2.48E+04	-64	15.9	-111
L3	-841.	2.58E+04	-93	7.78E+03	91
L4	-841.	2.58E+04	-93	7.78E+03	91
NF	—	—	—	—	—
NS	108.	2.92E+04	-84	4.46E+03	-19

Table H-1294. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.49E+04	2.49E+04	-2.47E+04	2.46E+04
A2	-5.56E+04	3.40E+04	-3.67E+04	3.37E+04
FD	-3.58E+04	3.21E+04	-3.30E+04	3.14E+04
L1	-2.48E+04	2.48E+04	-2.47E+04	2.47E+04
L3	-3.33E+04	2.96E+04	-3.25E+04	2.94E+04
L4	-3.33E+04	2.96E+04	-3.25E+04	2.94E+04
NF	—	—	—	—
NS	-3.13E+04	3.03E+04	-3.10E+04	3.00E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-648. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

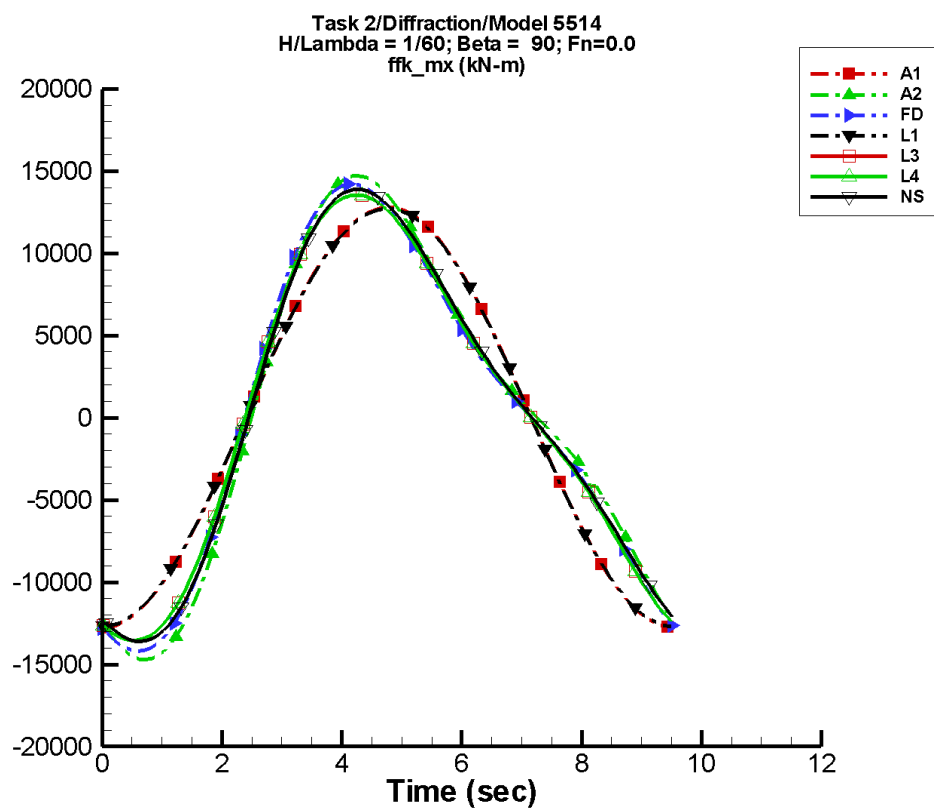
Table H-1295. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	18.7	3.75E+04	-65	36.8	-123
A2	23.8	2.54E+04	-140	2.50E+04	-3
FD	-218.	2.94E+04	-116	7.53E+03	11
L1	12.4	3.71E+04	-64	23.8	-111
L3	201.	2.29E+04	-119	7.55E+03	4
L4	201.	2.29E+04	-119	7.55E+03	4
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1296. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.74E+04	3.74E+04	-3.70E+04	3.70E+04
A2	-2.96E+05	2.67E+05	-5.97E+04	7.35E+04
FD	-4.39E+04	6.48E+04	-3.79E+04	5.90E+04
L1	-3.71E+04	3.71E+04	-3.70E+04	3.70E+04
L3	-4.16E+04	5.54E+04	-3.42E+04	5.37E+04
L4	-4.16E+04	5.54E+04	-3.42E+04	5.37E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-649. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1297. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

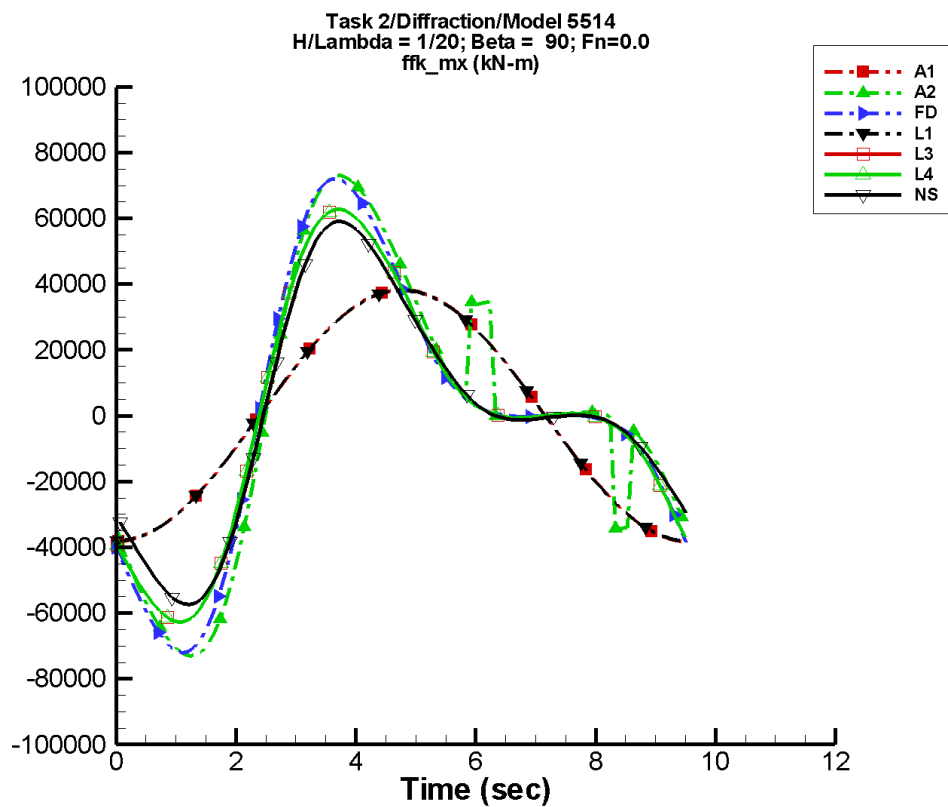
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	12.7	1.28E+04	-95	17.2	-152
A2	7.91	1.31E+04	-99	3.78E+03	162
FD	3.45	1.28E+04	-96	3.47E+03	169
L1	8.81	1.27E+04	-94	9.40	-69
L3	9.42	1.25E+04	-94	2.88E+03	173
L4	9.42	1.25E+04	-94	2.88E+03	173
NF	—	—	—	—	—
NS	28.5	1.26E+04	-92	3.08E+03	173

Table H-1298. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.28E+04	1.28E+04	-1.28E+04	1.26E+04
A2	-1.47E+04	1.47E+04	-1.45E+04	1.45E+04
FD	-1.42E+04	1.42E+04	-1.40E+04	1.43E+04
L1	-1.27E+04	1.27E+04	-1.27E+04	1.27E+04
L3	-1.35E+04	1.35E+04	-1.35E+04	1.35E+04
L4	-1.35E+04	1.35E+04	-1.35E+04	1.35E+04
NF	—	—	—	—
NS	-1.36E+04	1.39E+04	-1.34E+04	1.37E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-650. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

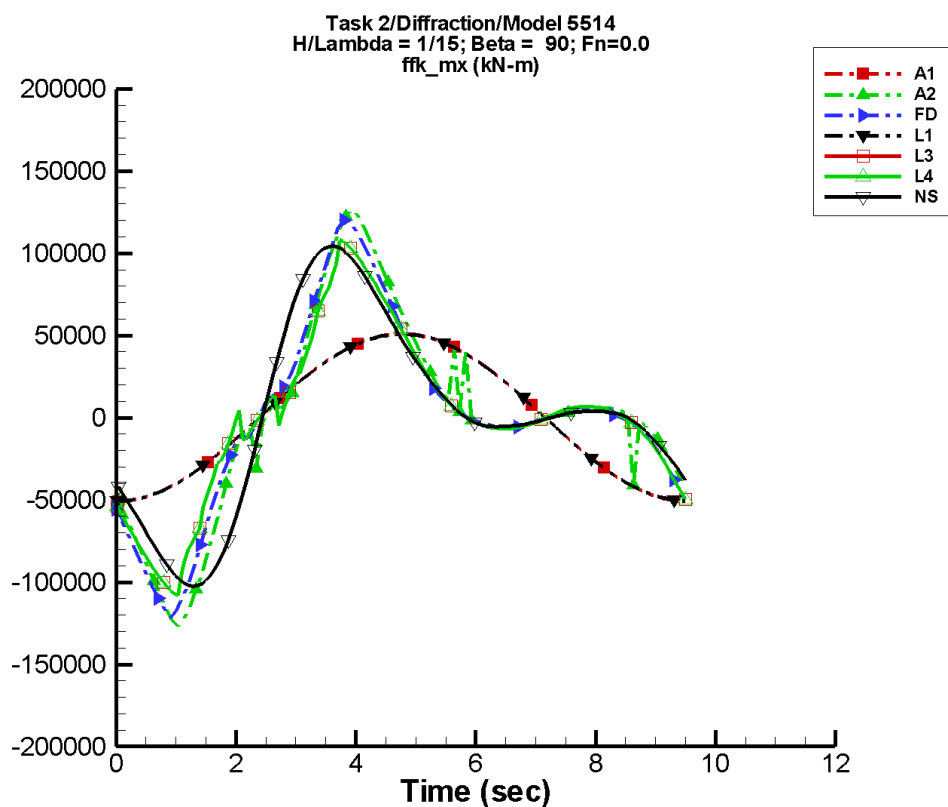
Table H-1299. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	37.9	3.82E+04	-95	51.5	-152
A2	259.	4.94E+04	-100	3.20E+04	160
FD	247.	4.62E+04	-96	3.56E+04	168
L1	26.4	3.81E+04	-94	28.2	-69
L3	89.2	4.23E+04	-94	2.95E+04	173
L4	89.2	4.23E+04	-94	2.95E+04	173
NF	—	—	—	—	—
NS	46.8	3.81E+04	-93	2.76E+04	171

Table H-1300. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.82E+04	3.82E+04	-3.82E+04	3.78E+04
A2	-7.30E+04	7.30E+04	-7.11E+04	7.11E+04
FD	-7.20E+04	7.20E+04	-6.99E+04	6.98E+04
L1	-3.81E+04	3.81E+04	-3.81E+04	3.80E+04
L3	-6.27E+04	6.27E+04	-6.21E+04	6.21E+04
L4	-6.27E+04	6.27E+04	-6.21E+04	6.21E+04
NF	—	—	—	—
NS	-5.75E+04	5.91E+04	-5.59E+04	5.74E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-651. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

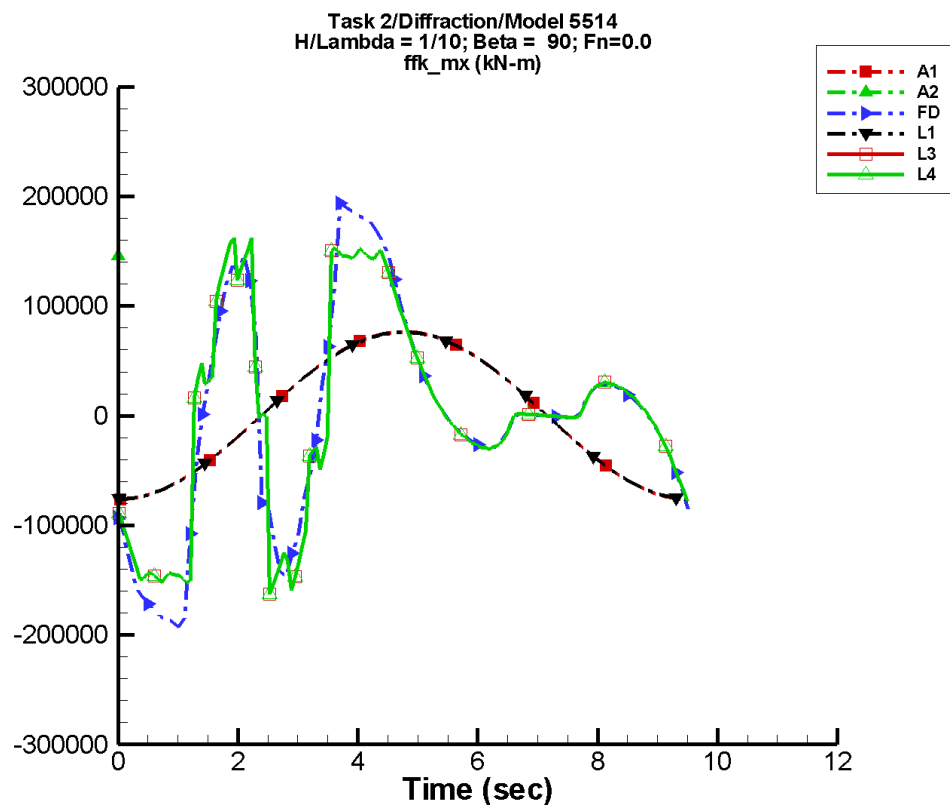
Table H-1301. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	50.4	5.09E+04	-95	68.6	-152
A2	96.8	6.57E+04	-99	5.08E+04	163
FD	41.1	6.30E+04	-96	4.85E+04	169
L1	35.2	5.08E+04	-94	37.6	-69
L3	-324.	5.51E+04	-93	4.01E+04	174
L4	-324.	5.51E+04	-93	4.01E+04	174
NF	—	—	—	—	—
NS	-131.	5.68E+04	-94	5.37E+04	171

Table H-1302. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.09E+04	5.09E+04	-5.08E+04	5.03E+04
A2	-1.27E+05	1.27E+05	-1.14E+05	1.14E+05
FD	-1.22E+05	1.21E+05	-1.09E+05	1.11E+05
L1	-5.08E+04	5.08E+04	-5.08E+04	5.06E+04
L3	-1.08E+05	1.08E+05	-1.01E+05	1.01E+05
L4	-1.08E+05	1.08E+05	-1.01E+05	1.01E+05
NF	—	—	—	—
NS	-1.02E+05	1.04E+05	-1.00E+05	1.02E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-652. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

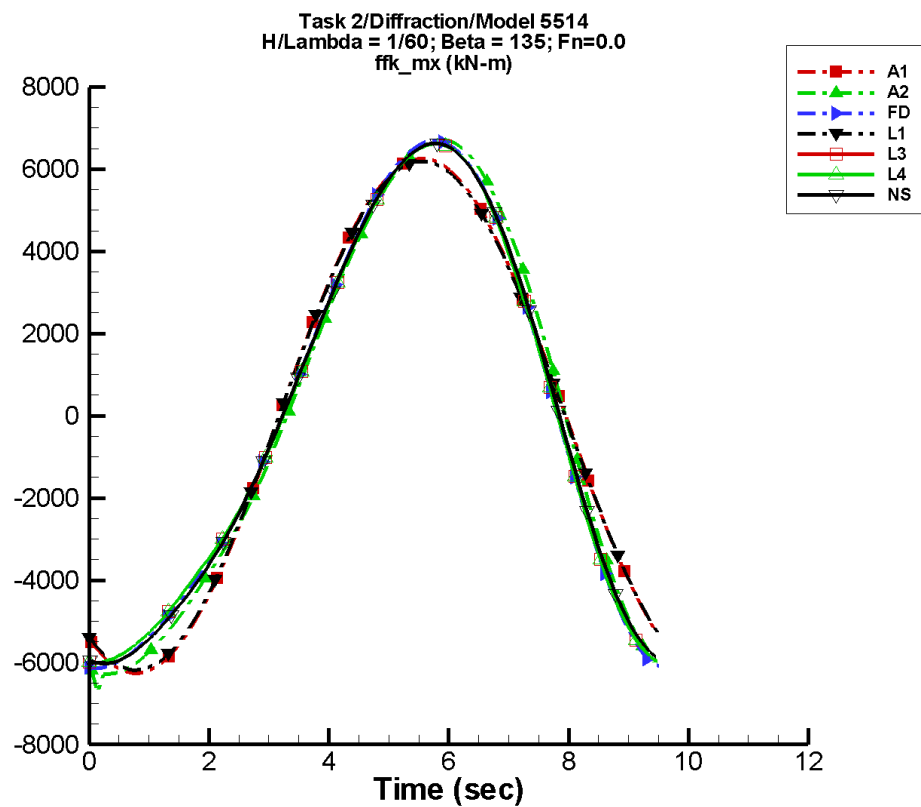
Table H-1303. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	75.7	7.65E+04	-95	103.	-152
A2	5.41E+05	5.97E+05	141	1.79E+05	-16
FD	-2.36E+03	7.58E+04	-96	3.37E+04	176
L1	52.8	7.62E+04	-94	56.4	-69
L3	-2.22E+03	5.96E+04	-89	2.52E+04	177
L4	-2.22E+03	5.96E+04	-89	2.52E+04	177
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1304. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.65E+04	7.65E+04	-7.64E+04	7.56E+04
A2	1.46E+05	1.94E+05	1.46E+05	1.94E+05
FD	-1.94E+05	1.94E+05	-1.77E+05	1.86E+05
L1	-7.62E+04	7.62E+04	-7.62E+04	7.59E+04
L3	-1.63E+05	1.70E+05	-1.51E+05	1.51E+05
L4	-1.63E+05	1.70E+05	-1.51E+05	1.51E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-653. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1305. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

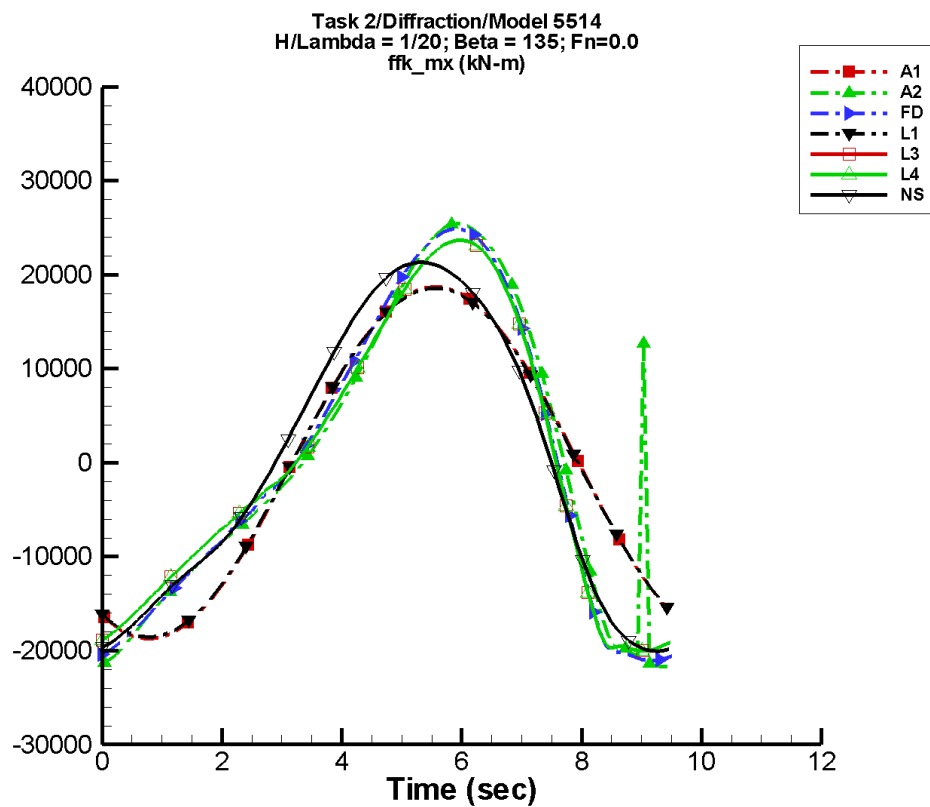
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.64	6.26E+03	-125	9.72	-169
A2	12.7	6.41E+03	-126	803.	-50
FD	8.19	6.30E+03	-123	848.	-36
L1	5.56E-02	6.19E+03	-123	0.314	-39
L3	10.2	6.19E+03	-121	862.	-31
L4	10.2	6.19E+03	-121	862.	-31
NF	—	—	—	—	—
NS	27.0	6.24E+03	-118	771.	-29

Table H-1306. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.26E+03	6.26E+03	-6.20E+03	6.19E+03
A2	-6.73E+03	6.71E+03	-6.31E+03	6.63E+03
FD	-6.14E+03	6.69E+03	-6.18E+03	6.61E+03
L1	-6.19E+03	6.19E+03	-6.16E+03	6.16E+03
L3	-6.01E+03	6.62E+03	-6.04E+03	6.59E+03
L4	-6.01E+03	6.62E+03	-6.04E+03	6.59E+03
NF	—	—	—	—
NS	-6.03E+03	6.62E+03	-6.01E+03	6.54E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-654. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

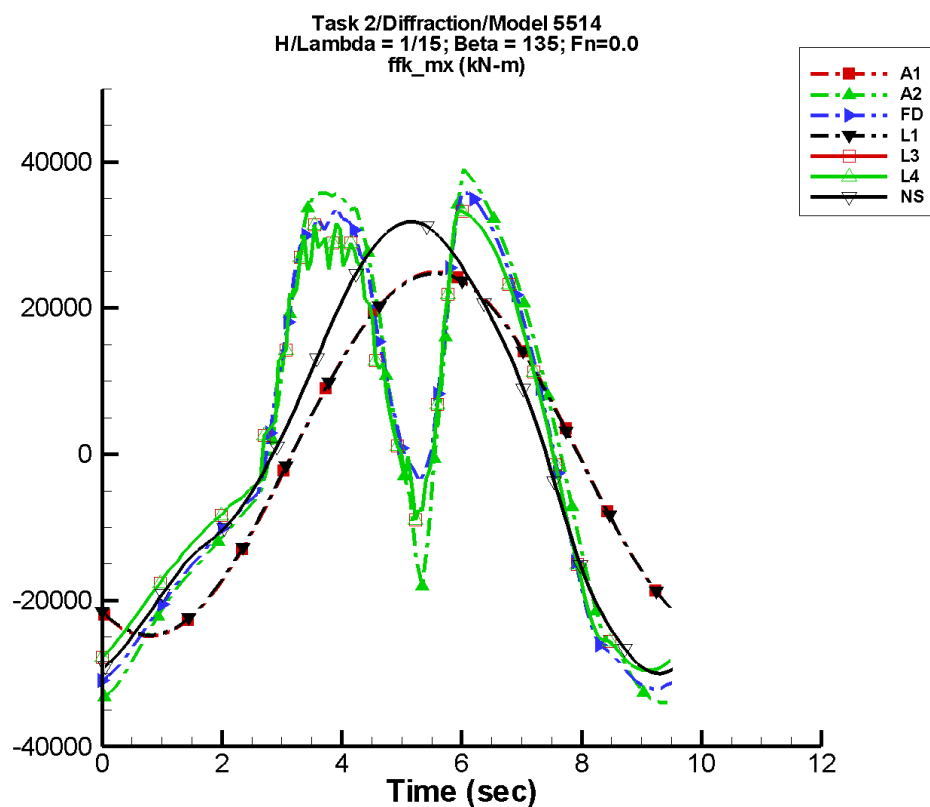
Table H-1307. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	22.9	1.87E+04	-125	29.1	-169
A2	337.	2.06E+04	-121	6.32E+03	-33
FD	67.2	2.12E+04	-116	6.34E+03	-28
L1	0.164	1.86E+04	-123	0.936	-39
L3	76.1	1.97E+04	-113	6.57E+03	-24
L4	76.1	1.97E+04	-113	6.57E+03	-24
NF	—	—	—	—	—
NS	148.	2.02E+04	-103	3.39E+03	-1

Table H-1308. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E+04	1.87E+04	-1.85E+04	1.85E+04
A2	-2.17E+04	2.54E+04	-2.09E+04	2.50E+04
FD	-2.11E+04	2.49E+04	-2.09E+04	2.45E+04
L1	-1.86E+04	1.86E+04	-1.85E+04	1.85E+04
L3	-2.00E+04	2.37E+04	-1.99E+04	2.36E+04
L4	-2.00E+04	2.37E+04	-1.99E+04	2.36E+04
NF	—	—	—	—
NS	-2.01E+04	2.13E+04	-1.98E+04	2.11E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-655. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

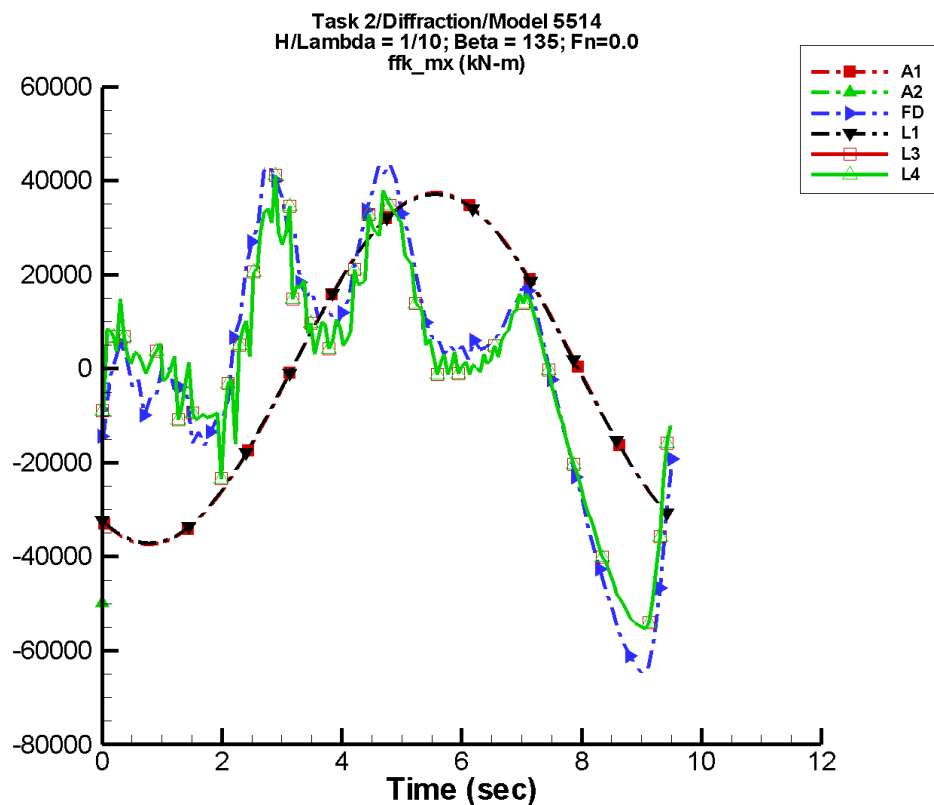
Table H-1309. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	30.4	2.49E+04	-125	38.7	-169
A2	462.	2.69E+04	-103	8.61E+03	-110
FD	745.	2.83E+04	-101	5.30E+03	-117
L1	0.225	2.47E+04	-123	1.25	-39
L3	784.	2.53E+04	-97	5.10E+03	-103
L4	784.	2.53E+04	-97	5.10E+03	-103
NF	—	—	—	—	—
NS	190.	2.90E+04	-99	4.76E+03	6

Table H-1310. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.49E+04	2.49E+04	-2.47E+04	2.47E+04
A2	-3.40E+04	3.91E+04	-3.32E+04	3.53E+04
FD	-3.21E+04	3.59E+04	-3.15E+04	3.29E+04
L1	-2.48E+04	2.47E+04	-2.47E+04	2.46E+04
L3	-2.96E+04	3.33E+04	-2.94E+04	3.25E+04
L4	-2.96E+04	3.33E+04	-2.94E+04	3.25E+04
NF	—	—	—	—
NS	-3.00E+04	3.18E+04	-2.97E+04	3.16E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-656. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

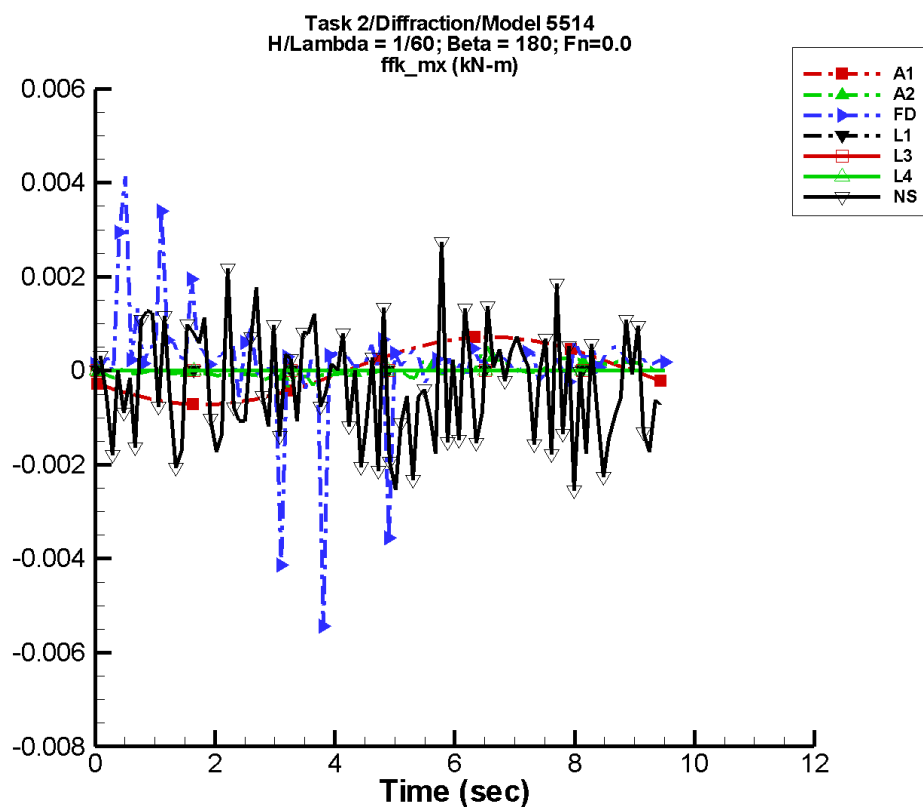
Table H-1311. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	45.7	3.75E+04	-125	58.1	-169
A2	-5.88E+05	2.30E+06	42	1.33E+06	-120
FD	739.	2.75E+04	-73	6.57E+03	-28
L1	0.334	3.71E+04	-123	1.87	-39
L3	292.	2.13E+04	-67	5.78E+03	-8
L4	292.	2.13E+04	-67	5.78E+03	-8
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1312. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.75E+04	3.74E+04	-3.71E+04	3.70E+04
A2	-4.99E+04	-4.40E+04	-4.99E+04	-4.40E+04
FD	-6.49E+04	4.36E+04	-5.92E+04	3.73E+04
L1	-3.71E+04	3.71E+04	-3.70E+04	3.70E+04
L3	-5.53E+04	4.12E+04	-5.36E+04	3.31E+04
L4	-5.53E+04	4.12E+04	-5.36E+04	3.31E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-657. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1313. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

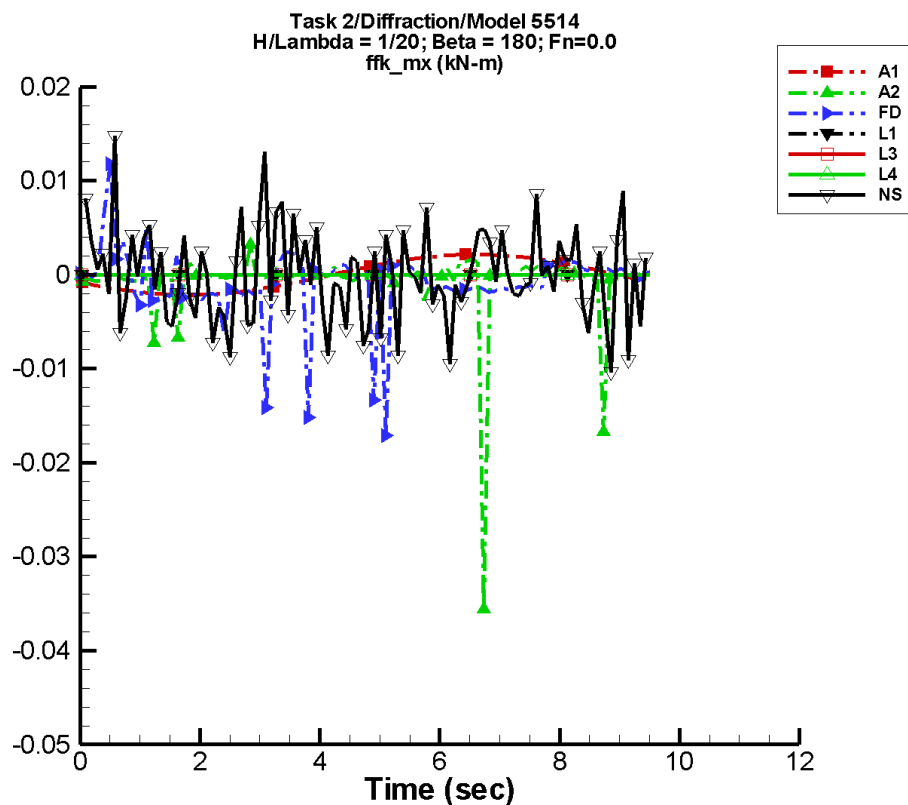
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.48E-07	7.18E-04	-163	1.00E-06	169
A2	1.06E-05	1.39E-04	160	2.82E-05	-97
FD	2.96E-04	4.50E-04	66	3.60E-04	12
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.95E-04	2.04E-04	25	3.43E-04	-66

Table H-1314. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.18E-04	7.18E-04	-7.19E-04	7.10E-04
A2	-5.94E-04	8.09E-04	-2.50E-04	2.11E-04
FD	-5.43E-03	8.04E-03	-7.14E-04	1.67E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.24E-03	2.74E-03	-1.18E-03	4.71E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-658. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

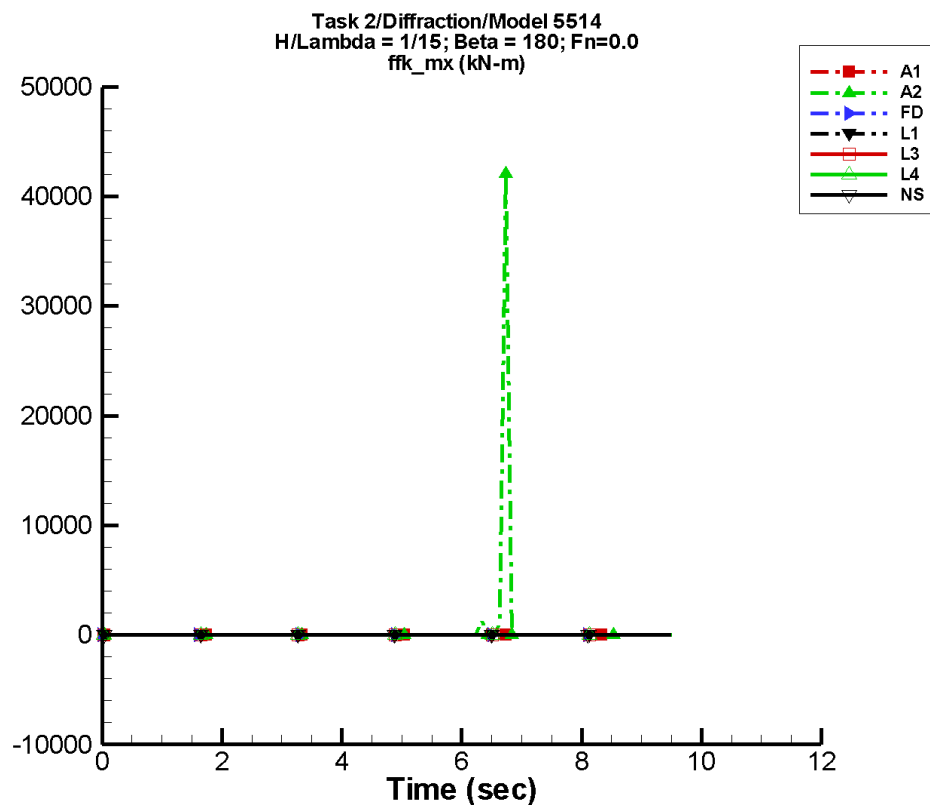
Table H-1315. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.24E-06	2.15E-03	-163	2.99E-06	169
A2	-150.	319.	-102	365.	-118
FD	-4.66E-04	1.40E-03	90	1.38E-03	91
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.04E-04	1.08E-03	89	2.60E-04	118

Table H-1316. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.15E-03	2.15E-03	-2.15E-03	2.12E-03
A2	-2.53E+04	3.19E-03	-3.38E+03	289.
FD	-1.71E-02	2.36E-02	-3.35E-03	4.12E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.04E-02	1.48E-02	-2.74E-03	5.58E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-659. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

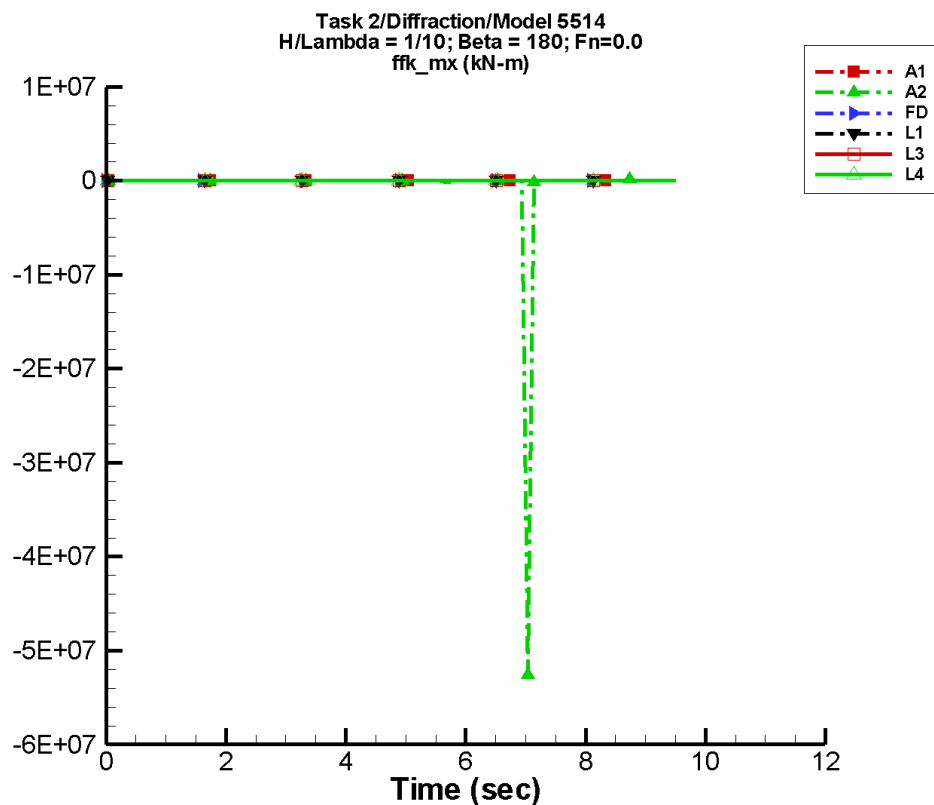
Table H-1317. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.98E-06	2.86E-03	-163	3.98E-06	169
A2	471.	953.	-171	856.	-65
FD	-1.14E-03	3.05E-03	33	1.20E-03	59
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	9.16E-04	2.42E-03	45	1.98E-03	114

Table H-1318. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.86E-03	2.86E-03	-2.87E-03	2.83E-03
A2	-9.80E-02	4.21E+04	-487.	5.84E+03
FD	-3.70E-02	2.84E-02	-5.64E-03	3.97E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.80E-02	2.49E-02	-4.14E-03	8.24E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-660. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

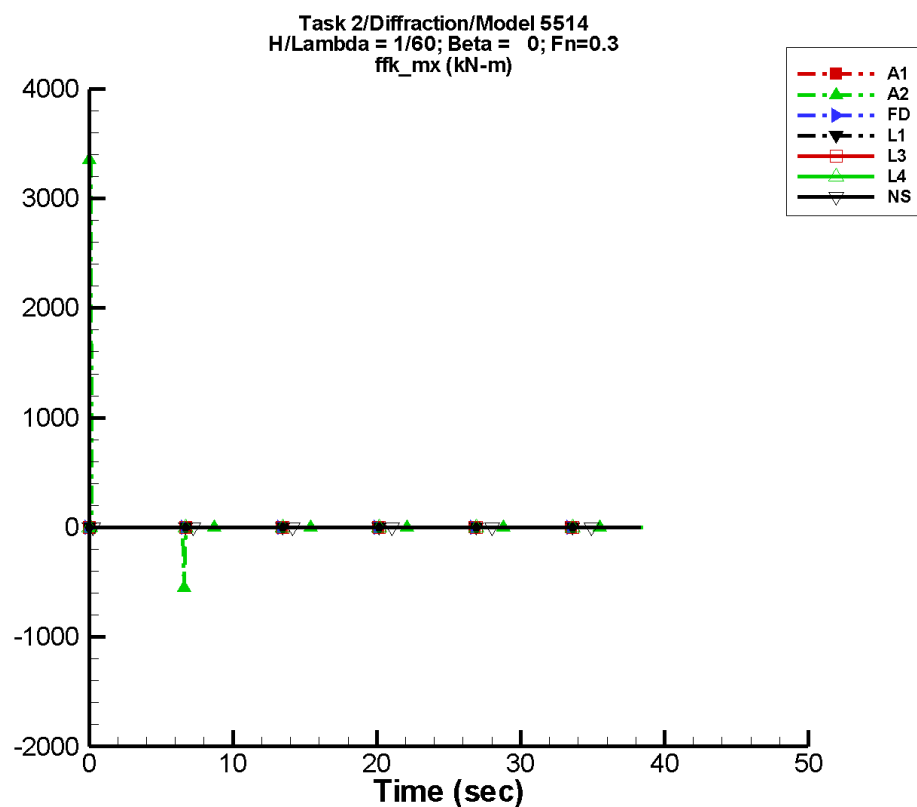
Table H-1319. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.48E-06	4.30E-03	-163	5.98E-06	169
A2	-5.82E+05	1.11E+06	-4	1.02E+06	92
FD	-4.74E-04	3.41E-03	68	8.23E-04	-66
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1320. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.30E-03	4.29E-03	-4.30E-03	4.25E-03
A2	-5.26E+07	1.73E+05	-7.04E+06	6.00E+05
FD	-8.04E-02	4.39E-02	-1.12E-02	7.10E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-661. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1321. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

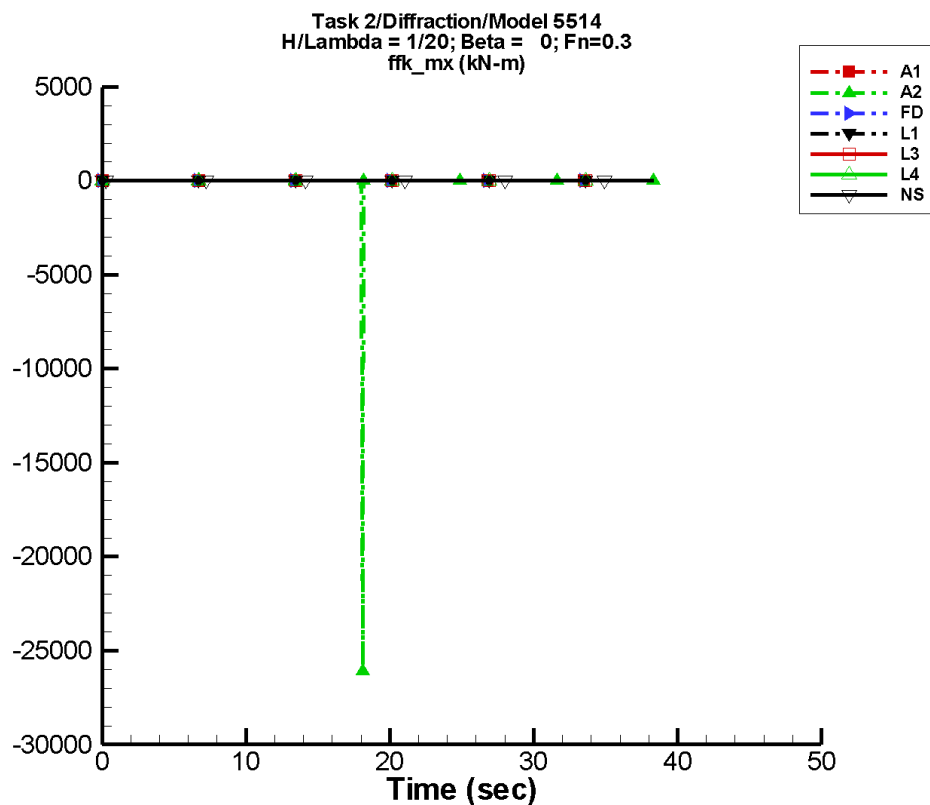
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.39E-07	7.18E-04	164	5.79E-07	-25
A2	-1.39	3.02	-152	3.62	151
FD	1.12E-04	1.87E-05	89	2.98E-05	136
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.36E-04	3.99E-04	34	3.51E-04	-153

Table H-1322. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.18E-04	7.18E-04	-7.18E-04	7.18E-04
A2	-549.	2.41E-03	-73.2	6.28
FD	-4.46E-04	7.37E-04	-1.30E-04	4.19E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.11E-03	2.38E-03	-1.36E-03	7.22E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-662. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

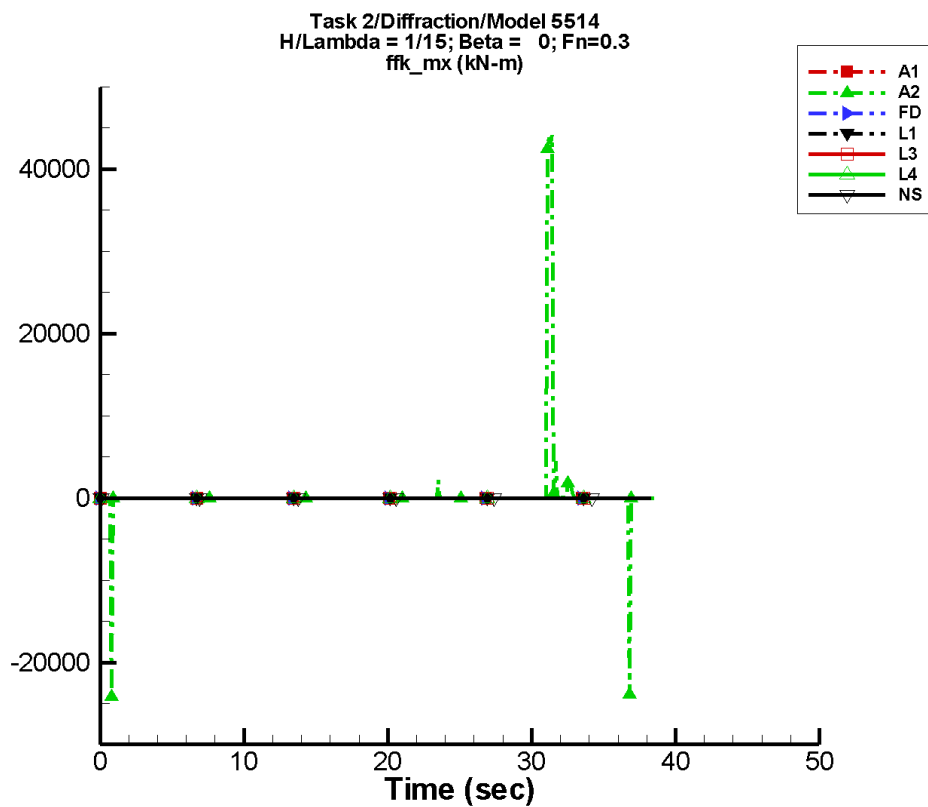
Table H-1323. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.02E-06	2.15E-03	164	1.73E-06	-25
A2	-73.2	139.	110	125.	-60
FD	1.32E-04	1.30E-05	133	4.57E-05	-4
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-6.11E-04	1.31E-03	-30	7.96E-04	-74

Table H-1324. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.15E-03	2.15E-03	-2.15E-03	2.15E-03
A2	-2.61E+04	7.45E-02	-3.54E+03	303.
FD	-6.47E-04	1.02E-03	-1.59E-04	4.08E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.35E-02	1.35E-02	-5.88E-03	3.40E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-663. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

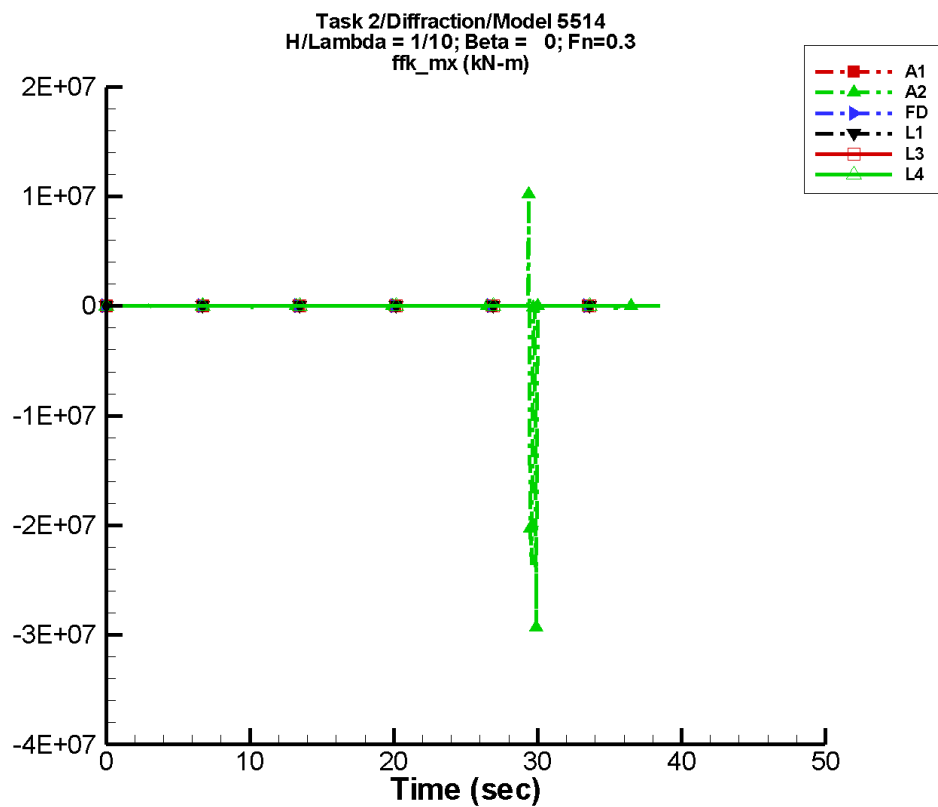
Table H-1325. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.35E-06	2.86E-03	164	2.31E-06	-25
A2	388.	842.	174	1.04E+03	-110
FD	1.00E-04	3.94E-05	68	1.05E-04	73
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-3.52E-04	2.06E-03	-38	1.26E-03	-41

Table H-1326. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.86E-03	2.86E-03	-2.86E-03	2.86E-03
A2	-2.42E+04	4.41E+04	-3.28E+03	2.23E+04
FD	-8.36E-04	1.26E-03	-1.81E-04	4.33E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.11E-02	1.61E-02	-6.26E-03	5.29E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-664. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

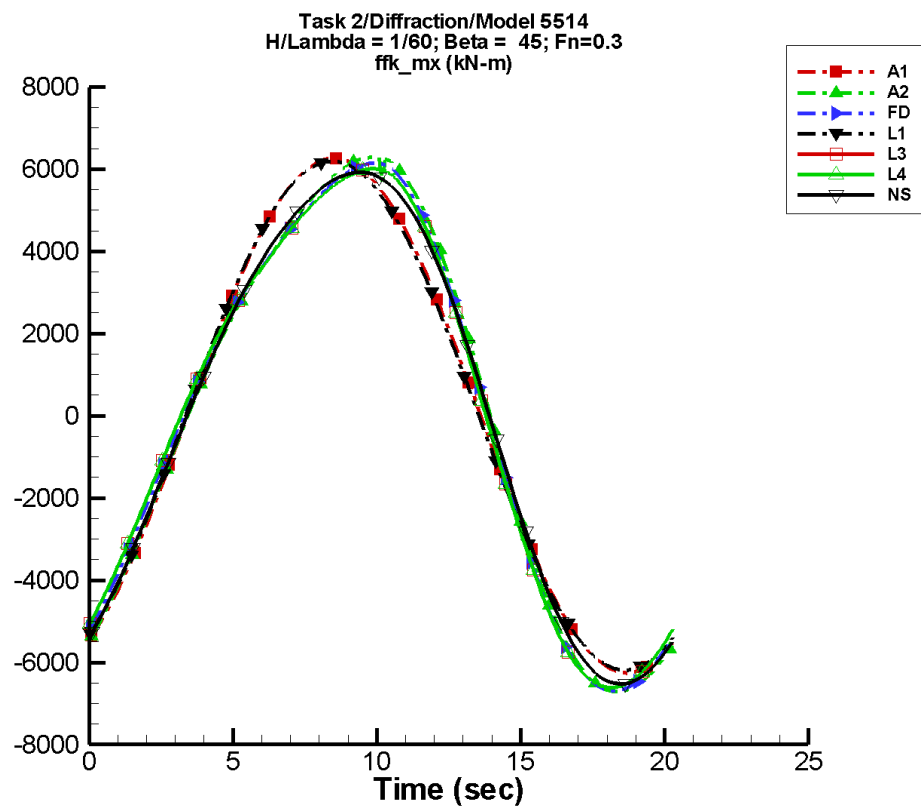
Table H-1327. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.03E-06	4.30E-03	164	3.47E-06	-25
A2	-1.76E+05	3.34E+05	-8	2.98E+05	85
FD	-8.34E-05	1.64E-04	138	2.54E-04	-3
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1328. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.30E-03	4.30E-03	-4.29E-03	4.29E-03
A2	-2.93E+07	1.02E+07	-7.75E+06	5.09E+05
FD	-1.99E-03	1.77E-03	-1.38E-03	7.64E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-665. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1329. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

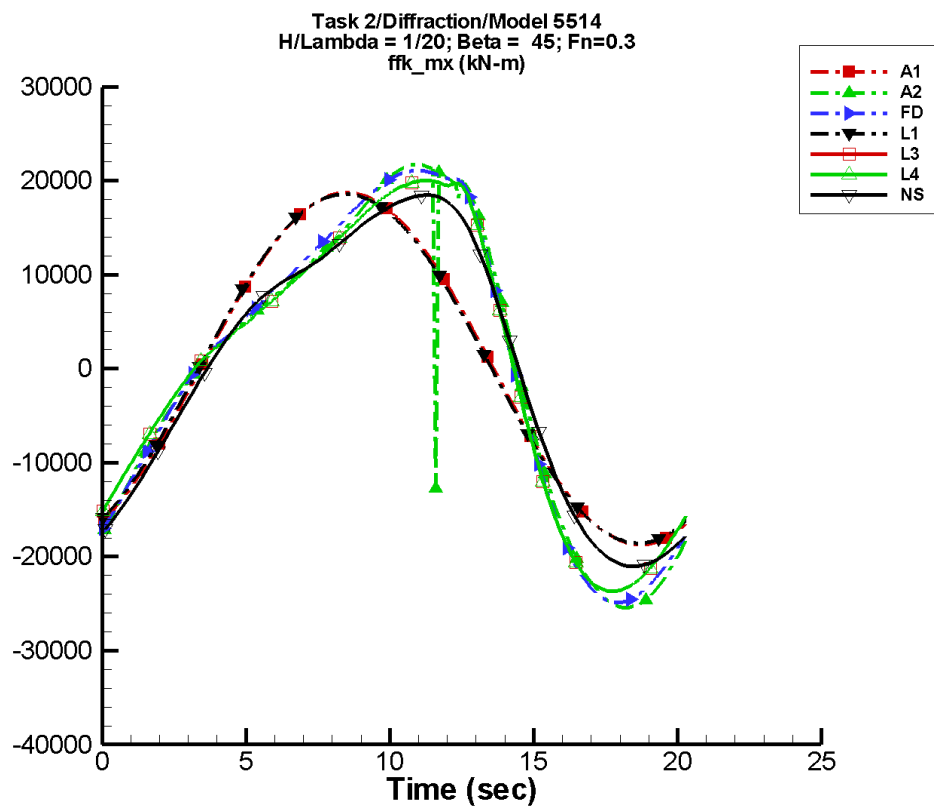
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.56	6.26E+03	-69	5.43	-153
A2	0.109	6.44E+03	-73	755.	9
FD	-4.38	6.31E+03	-74	830.	3
L1	0.619	6.19E+03	-63	2.04	66
L3	-11.2	6.19E+03	-65	862.	18
L4	-11.2	6.19E+03	-65	862.	18
NF	—	—	—	—	—
NS	-7.11	6.22E+03	-65	566.	16

Table H-1330. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.26E+03	6.26E+03	-6.25E+03	6.25E+03
A2	-6.72E+03	6.28E+03	-6.70E+03	6.24E+03
FD	-6.70E+03	6.14E+03	-6.68E+03	6.13E+03
L1	-6.19E+03	6.19E+03	-6.18E+03	6.18E+03
L3	-6.62E+03	6.01E+03	-6.61E+03	6.03E+03
L4	-6.62E+03	6.01E+03	-6.61E+03	6.03E+03
NF	—	—	—	—
NS	-6.53E+03	5.92E+03	-6.46E+03	5.86E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-666. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

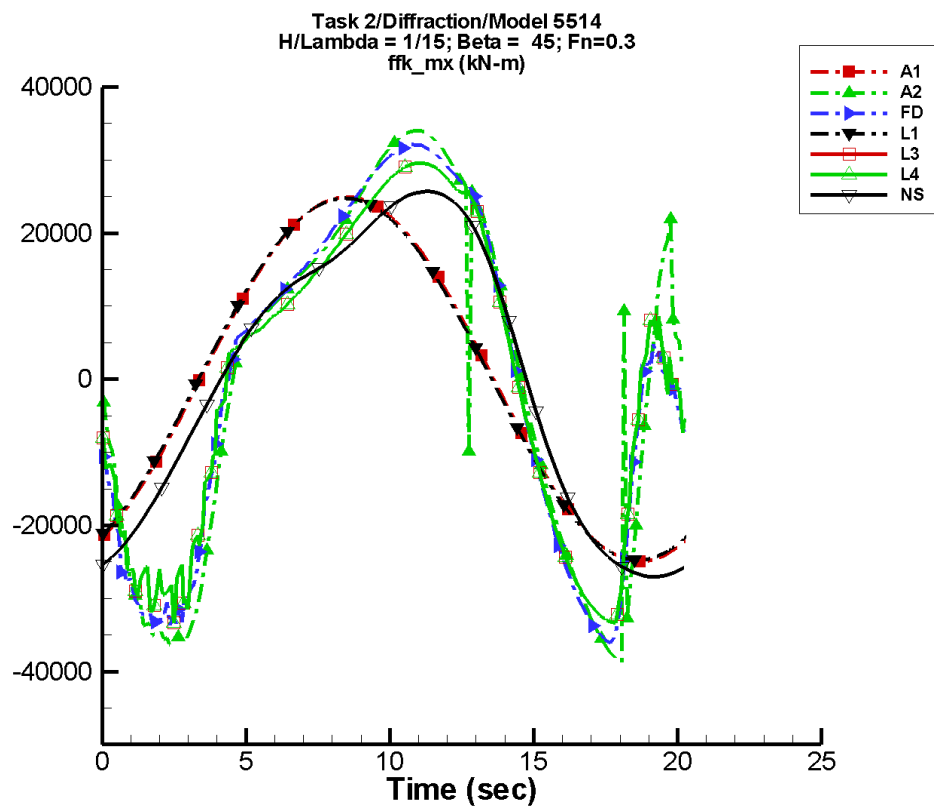
Table H-1331. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.65	1.87E+04	-69	16.3	-153
A2	-181.	2.08E+04	-79	6.61E+03	-4
FD	-34.3	2.12E+04	-82	6.45E+03	-5
L1	1.86	1.86E+04	-63	6.13	66
L3	-61.1	1.96E+04	-73	6.58E+03	12
L4	-61.1	1.96E+04	-73	6.58E+03	12
NF	—	—	—	—	—
NS	-135.	1.90E+04	-74	4.27E+03	2

Table H-1332. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E+04	1.87E+04	-1.87E+04	1.87E+04
A2	-2.54E+04	2.17E+04	-2.53E+04	2.19E+04
FD	-2.49E+04	2.11E+04	-2.48E+04	2.10E+04
L1	-1.86E+04	1.86E+04	-1.85E+04	1.85E+04
L3	-2.37E+04	2.00E+04	-2.37E+04	2.00E+04
L4	-2.37E+04	2.00E+04	-2.37E+04	2.00E+04
NF	—	—	—	—
NS	-2.10E+04	1.85E+04	-2.08E+04	1.83E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-667. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

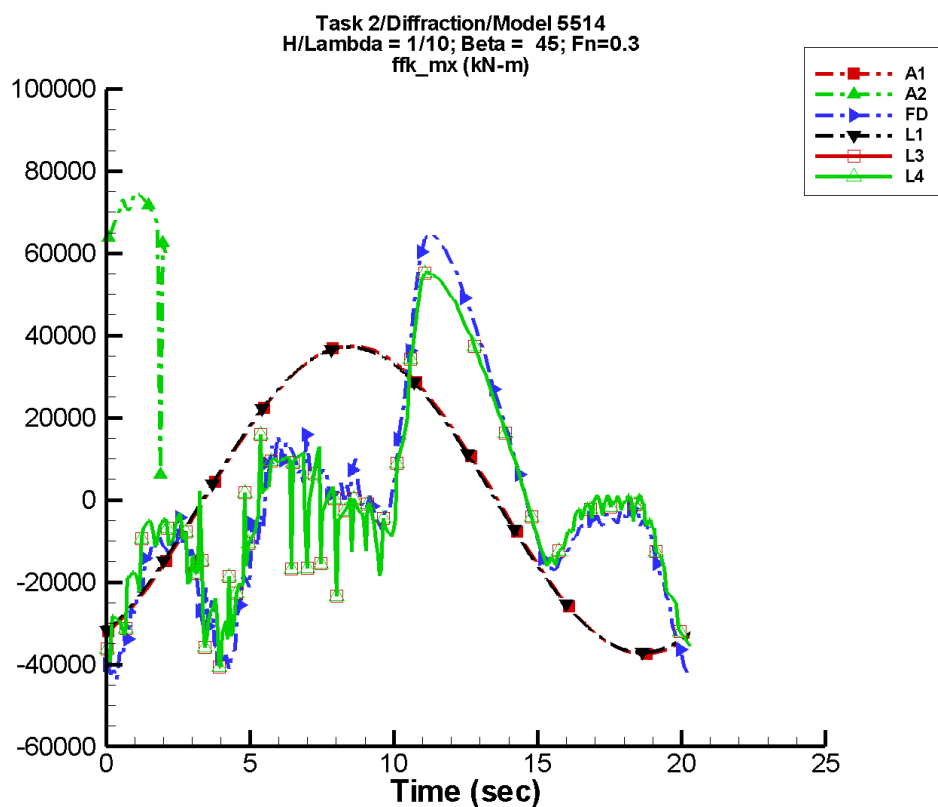
Table H-1333. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	10.2	2.49E+04	-69	21.6	-153
A2	-116.	2.76E+04	-93	9.46E+03	85
FD	-724.	2.89E+04	-98	7.73E+03	81
L1	2.48	2.47E+04	-63	8.16	66
L3	-680.	2.50E+04	-89	5.42E+03	91
L4	-680.	2.50E+04	-89	5.42E+03	91
NF	—	—	—	—	—
NS	-197.	2.60E+04	-81	4.78E+03	-8

Table H-1334. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.49E+04	2.49E+04	-2.49E+04	2.49E+04
A2	-5.58E+04	3.40E+04	-3.74E+04	3.39E+04
FD	-3.62E+04	3.21E+04	-3.53E+04	3.20E+04
L1	-2.48E+04	2.48E+04	-2.47E+04	2.47E+04
L3	-3.33E+04	2.96E+04	-3.32E+04	2.95E+04
L4	-3.33E+04	2.96E+04	-3.32E+04	2.95E+04
NF	—	—	—	—
NS	-2.70E+04	2.57E+04	-2.69E+04	2.55E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-668. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

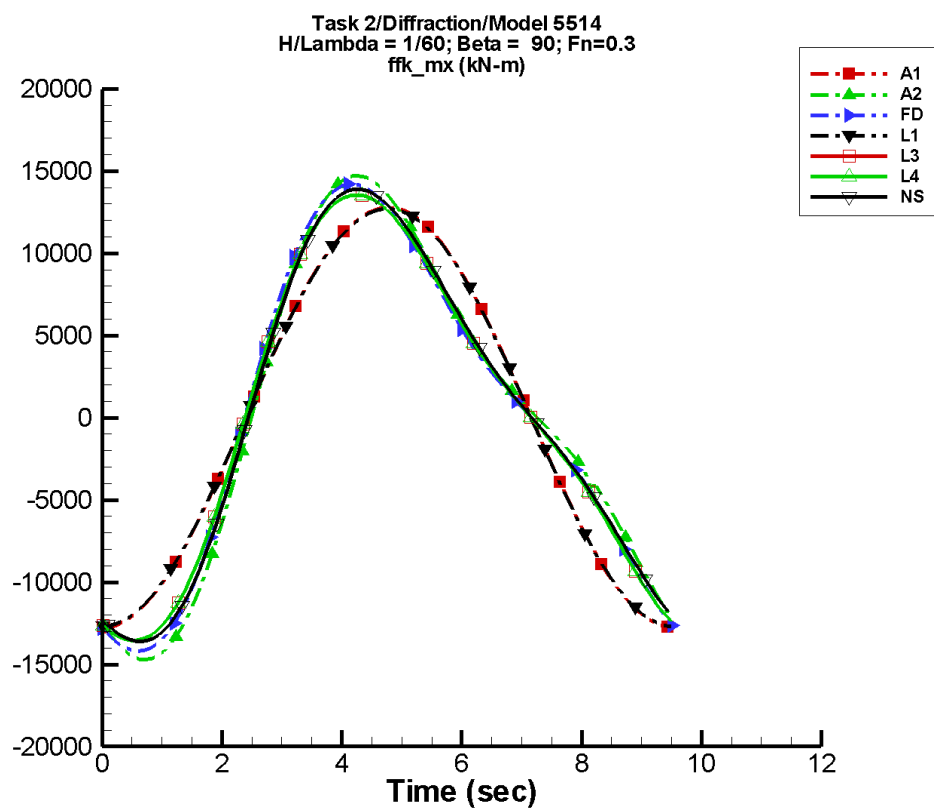
Table H-1335. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	15.3	3.74E+04	-69	32.5	-153
A2	-3.11E+05	4.96E+05	109	1.70E+05	-42
FD	18.7	2.94E+04	-122	8.62E+03	-1
L1	3.72	3.71E+04	-63	12.3	66
L3	-964.	2.15E+04	-121	6.78E+03	-9
L4	-964.	2.15E+04	-121	6.78E+03	-9
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1336. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.75E+04	3.75E+04	-3.74E+04	3.74E+04
A2	-1.56E+04	7.46E+04	-5.48E+03	7.30E+04
FD	-4.37E+04	6.48E+04	-4.08E+04	6.35E+04
L1	-3.71E+04	3.71E+04	-3.71E+04	3.71E+04
L3	-4.14E+04	5.53E+04	-3.50E+04	5.50E+04
L4	-4.14E+04	5.53E+04	-3.50E+04	5.50E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-669. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1337. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

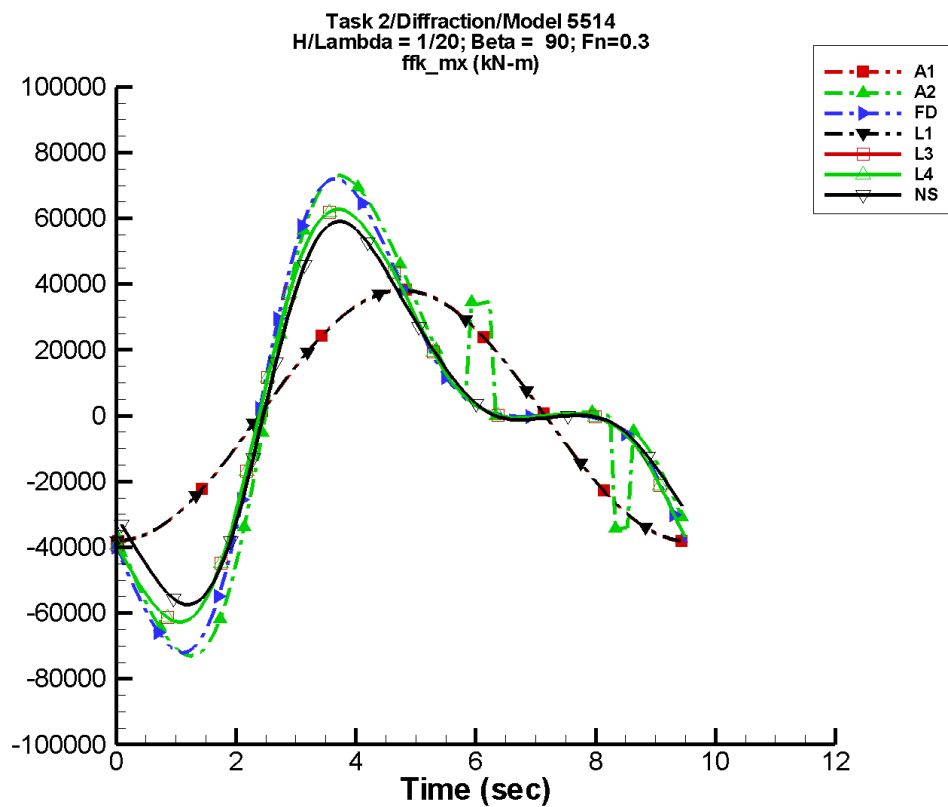
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	12.6	1.28E+04	-95	17.2	-152
A2	7.91	1.31E+04	-99	3.78E+03	162
FD	3.45	1.28E+04	-96	3.47E+03	169
L1	8.80	1.27E+04	-94	9.39	-69
L3	9.42	1.25E+04	-94	2.88E+03	173
L4	9.42	1.25E+04	-94	2.88E+03	173
NF	—	—	—	—	—
NS	28.1	1.26E+04	-92	3.08E+03	173

Table H-1338. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.28E+04	1.28E+04	-1.28E+04	1.26E+04
A2	-1.47E+04	1.47E+04	-1.45E+04	1.45E+04
FD	-1.42E+04	1.42E+04	-1.40E+04	1.43E+04
L1	-1.27E+04	1.27E+04	-1.27E+04	1.26E+04
L3	-1.35E+04	1.35E+04	-1.35E+04	1.35E+04
L4	-1.35E+04	1.35E+04	-1.35E+04	1.35E+04
NF	—	—	—	—
NS	-1.36E+04	1.39E+04	-1.34E+04	1.37E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-670. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

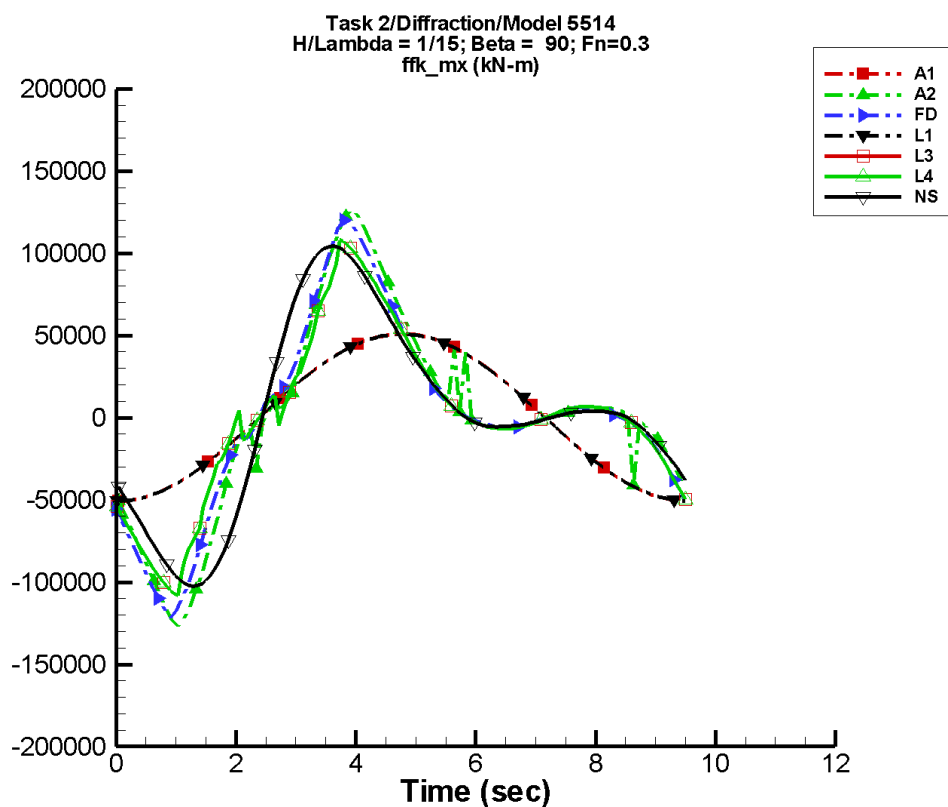
Table H-1339. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	37.8	3.82E+04	-95	51.5	-152
A2	259.	4.94E+04	-100	3.20E+04	160
FD	247.	4.62E+04	-96	3.56E+04	168
L1	26.4	3.81E+04	-94	28.2	-69
L3	89.2	4.23E+04	-94	2.95E+04	173
L4	89.2	4.23E+04	-94	2.95E+04	173
NF	—	—	—	—	—
NS	38.8	3.81E+04	-93	2.76E+04	171

Table H-1340. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.82E+04	3.82E+04	-3.82E+04	3.78E+04
A2	-7.30E+04	7.30E+04	-7.11E+04	7.11E+04
FD	-7.20E+04	7.20E+04	-6.99E+04	6.98E+04
L1	-3.81E+04	3.81E+04	-3.81E+04	3.79E+04
L3	-6.27E+04	6.27E+04	-6.21E+04	6.21E+04
L4	-6.27E+04	6.27E+04	-6.21E+04	6.21E+04
NF	—	—	—	—
NS	-5.74E+04	5.91E+04	-5.60E+04	5.75E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-671. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

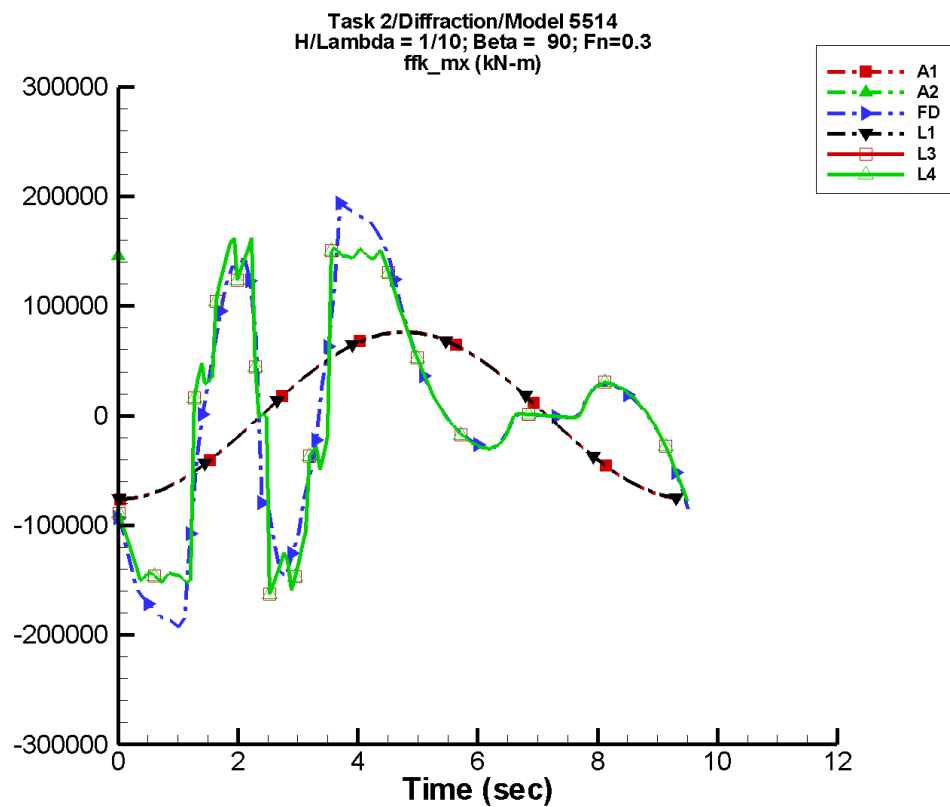
Table H-1341. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	50.4	5.09E+04	-95	68.6	-152
A2	96.8	6.57E+04	-99	5.08E+04	163
FD	41.0	6.30E+04	-96	4.85E+04	169
L1	35.2	5.08E+04	-94	37.6	-69
L3	-324.	5.51E+04	-93	4.01E+04	174
L4	-324.	5.51E+04	-93	4.01E+04	174
NF	—	—	—	—	—
NS	-131.	5.68E+04	-94	5.37E+04	171

Table H-1342. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.09E+04	5.09E+04	-5.08E+04	5.03E+04
A2	-1.27E+05	1.27E+05	-1.14E+05	1.14E+05
FD	-1.22E+05	1.21E+05	-1.09E+05	1.11E+05
L1	-5.08E+04	5.08E+04	-5.08E+04	5.06E+04
L3	-1.08E+05	1.08E+05	-1.01E+05	1.01E+05
L4	-1.08E+05	1.08E+05	-1.01E+05	1.01E+05
NF	—	—	—	—
NS	-1.02E+05	1.04E+05	-1.00E+05	1.02E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-672. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

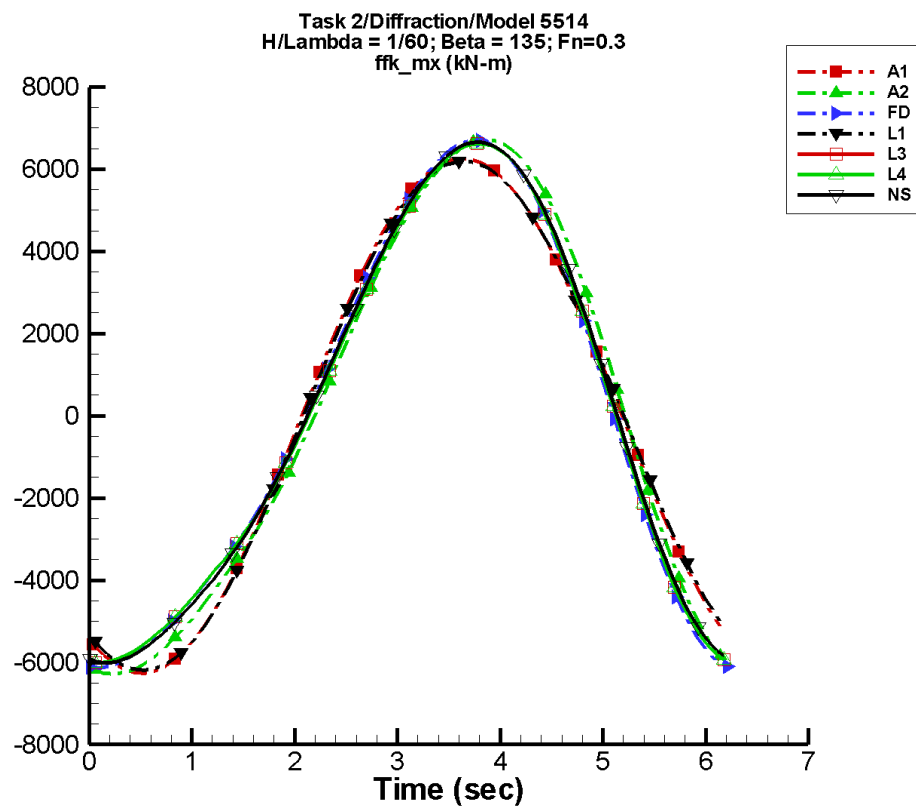
Table H-1343. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	75.7	7.64E+04	-95	103.	-152
A2	5.41E+05	5.97E+05	141	1.79E+05	-16
FD	-2.36E+03	7.58E+04	-96	3.37E+04	176
L1	52.8	7.61E+04	-94	56.4	-69
L3	-2.22E+03	5.96E+04	-89	2.52E+04	177
L4	-2.22E+03	5.96E+04	-89	2.52E+04	177
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1344. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.64E+04	7.64E+04	-7.63E+04	7.56E+04
A2	1.46E+05	1.94E+05	1.46E+05	1.94E+05
FD	-1.94E+05	1.94E+05	-1.77E+05	1.86E+05
L1	-7.62E+04	7.62E+04	-7.61E+04	7.59E+04
L3	-1.63E+05	1.70E+05	-1.51E+05	1.51E+05
L4	-1.63E+05	1.70E+05	-1.51E+05	1.51E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-673. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1345. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

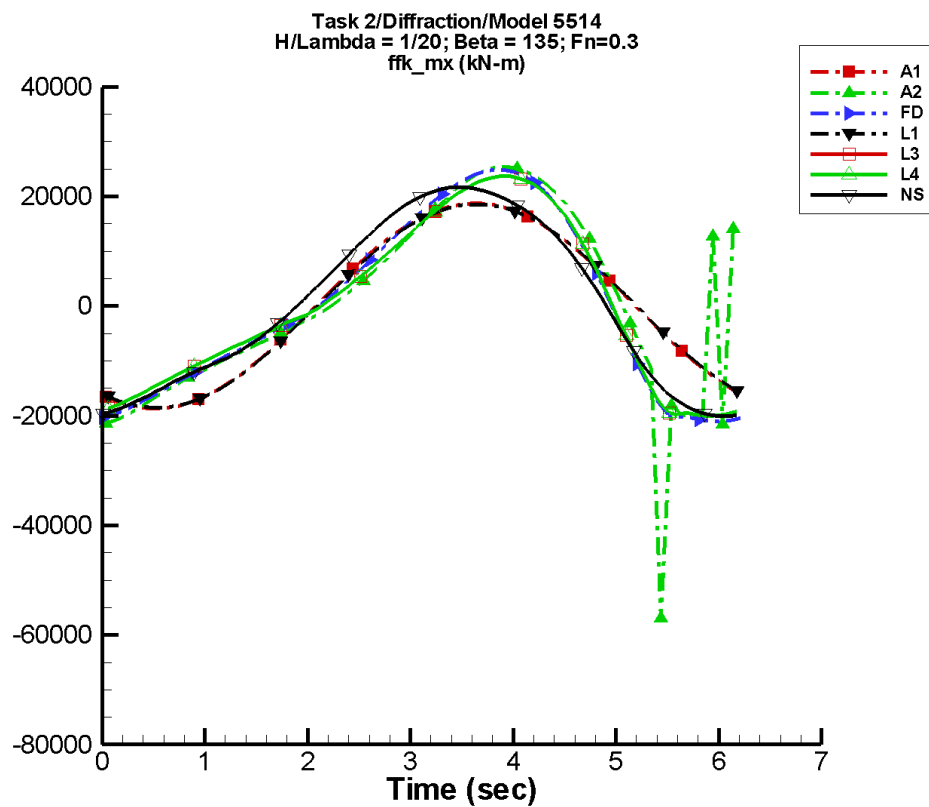
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	10.8	6.26E+03	-127	13.6	-173
A2	18.5	6.41E+03	-130	798.	-58
FD	4.17	6.28E+03	-139	838.	-69
L1	7.73	6.19E+03	-131	8.32	-168
L3	16.2	6.18E+03	-128	876.	-48
L4	16.2	6.18E+03	-128	876.	-48
NF	—	—	—	—	—
NS	43.7	6.25E+03	-120	786.	-31

Table H-1346. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.26E+03	6.26E+03	-6.09E+03	6.10E+03
A2	-6.28E+03	6.71E+03	-6.24E+03	6.53E+03
FD	-6.14E+03	6.69E+03	-6.19E+03	6.50E+03
L1	-6.19E+03	6.19E+03	-6.13E+03	6.13E+03
L3	-6.01E+03	6.62E+03	-6.00E+03	6.55E+03
L4	-6.01E+03	6.62E+03	-6.00E+03	6.55E+03
NF	—	—	—	—
NS	-6.01E+03	6.65E+03	-5.98E+03	6.58E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-674. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

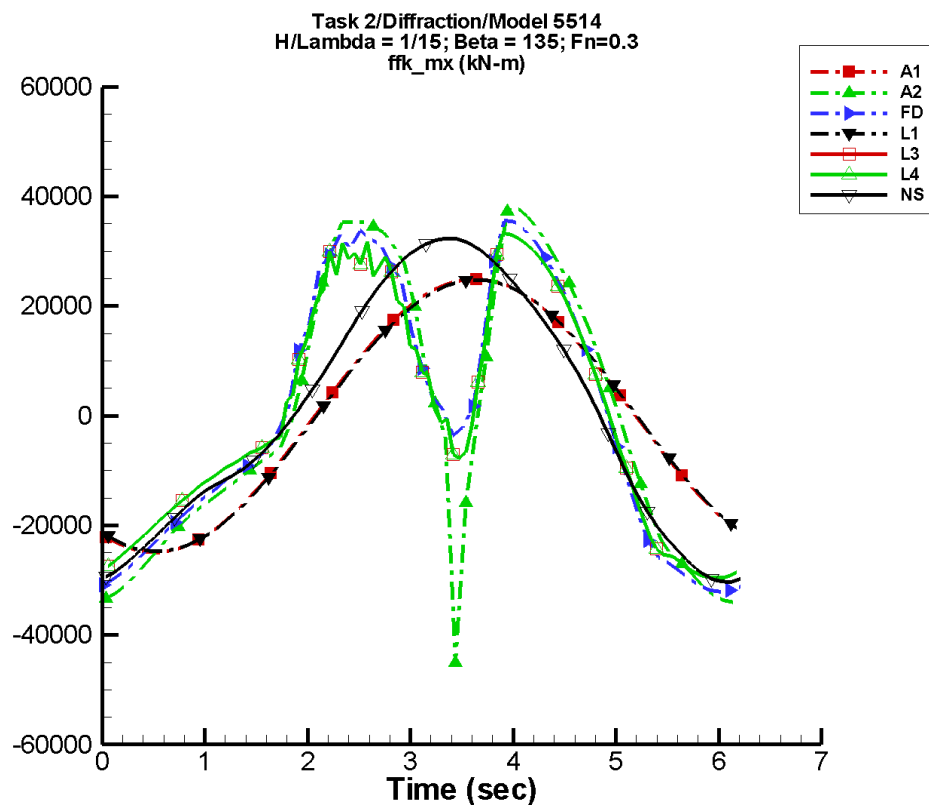
Table H-1347. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	32.2	1.87E+04	-127	40.8	-173
A2	218.	2.02E+04	-123	6.49E+03	-29
FD	97.2	2.11E+04	-133	6.35E+03	-63
L1	23.2	1.86E+04	-131	25.0	-168
L3	67.3	1.95E+04	-121	6.78E+03	-40
L4	67.3	1.95E+04	-121	6.78E+03	-40
NF	—	—	—	—	—
NS	255.	2.03E+04	-104	3.38E+03	-3

Table H-1348. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E+04	1.87E+04	-1.82E+04	1.82E+04
A2	-5.69E+04	2.54E+04	-2.07E+04	2.41E+04
FD	-2.10E+04	2.49E+04	-2.08E+04	2.39E+04
L1	-1.86E+04	1.86E+04	-1.84E+04	1.84E+04
L3	-2.00E+04	2.37E+04	-1.99E+04	2.34E+04
L4	-2.00E+04	2.37E+04	-1.99E+04	2.34E+04
NF	—	—	—	—
NS	-2.01E+04	2.17E+04	-1.98E+04	2.14E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-675. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

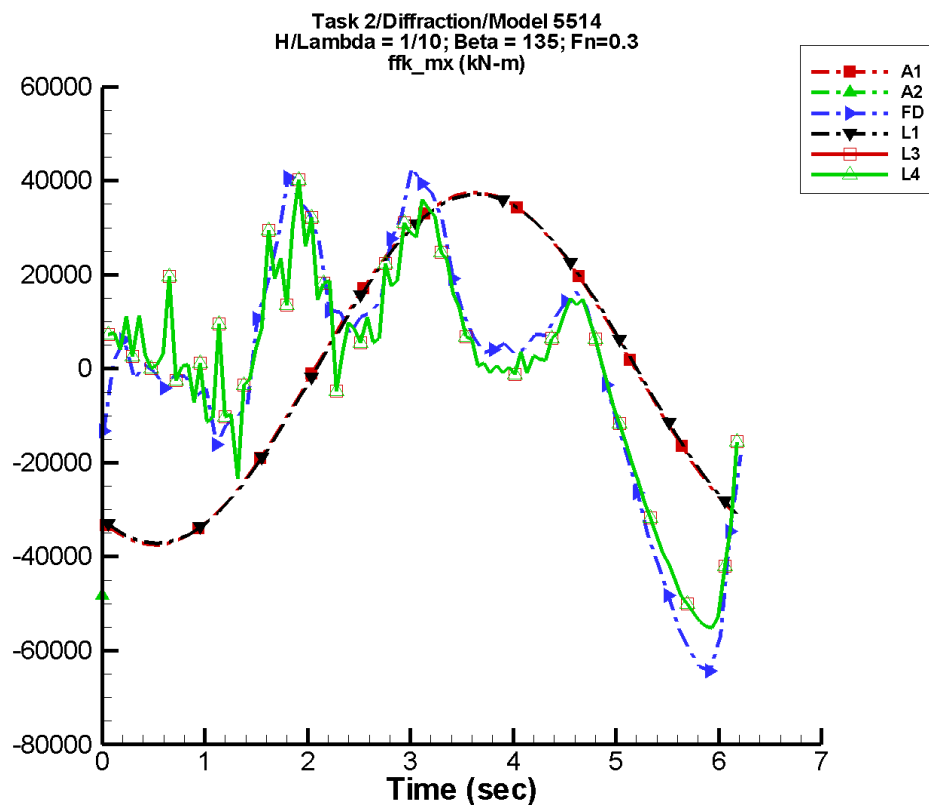
Table H-1349. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	42.8	2.49E+04	-127	54.3	-173
A2	-17.0	2.57E+04	-106	9.59E+03	-120
FD	786.	2.69E+04	-120	8.29E+03	-145
L1	30.9	2.47E+04	-131	33.3	-168
L3	477.	2.38E+04	-104	7.37E+03	-103
L4	477.	2.38E+04	-104	7.37E+03	-103
NF	—	—	—	—	—
NS	338.	2.94E+04	-100	4.58E+03	6

Table H-1350. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.49E+04	2.49E+04	-2.42E+04	2.43E+04
A2	-4.51E+04	3.80E+04	-3.25E+04	3.36E+04
FD	-3.21E+04	3.57E+04	-3.11E+04	3.09E+04
L1	-2.48E+04	2.48E+04	-2.45E+04	2.45E+04
L3	-2.96E+04	3.33E+04	-2.90E+04	3.14E+04
L4	-2.96E+04	3.33E+04	-2.90E+04	3.14E+04
NF	—	—	—	—
NS	-3.03E+04	3.23E+04	-3.00E+04	3.21E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-676. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

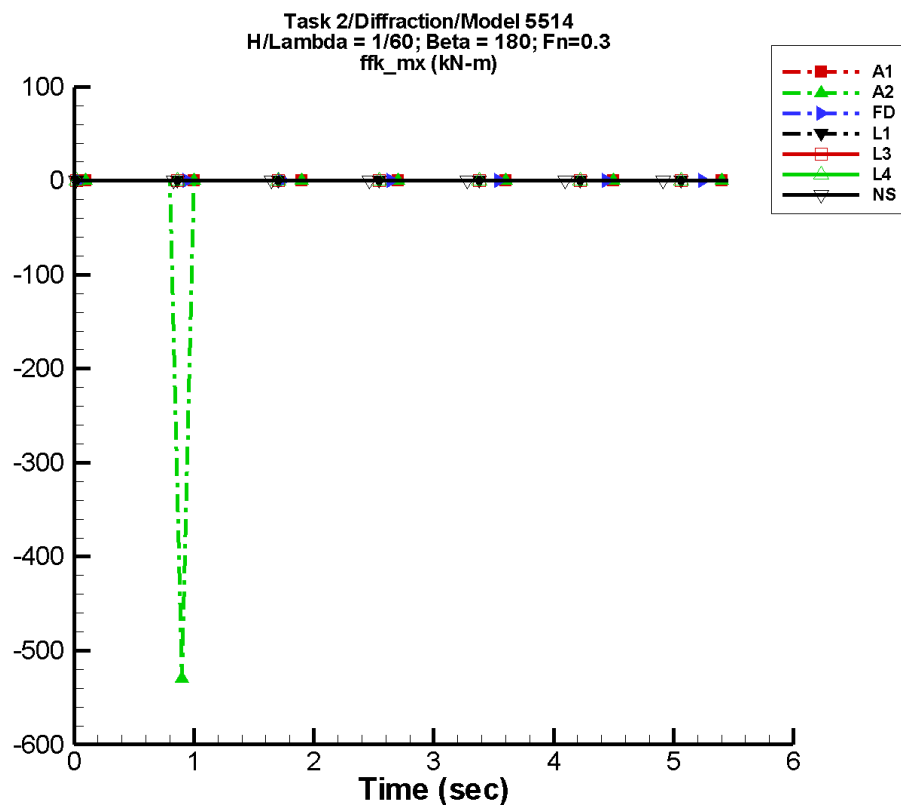
Table H-1351. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	64.3	3.75E+04	-127	81.6	-173
A2	-7.60E+03	2.32E+04	11	5.98E+04	-70
FD	1.08E+03	2.66E+04	-89	5.16E+03	-57
L1	46.4	3.71E+04	-131	49.9	-168
L3	1.08E+03	2.09E+04	-69	8.33E+03	-24
L4	1.08E+03	2.09E+04	-69	8.33E+03	-24
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1352. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.75E+04	3.75E+04	-3.64E+04	3.65E+04
A2	-4.82E+04	-3.92E+04	-4.82E+04	-3.92E+04
FD	-6.44E+04	4.28E+04	-5.18E+04	3.06E+04
L1	-3.71E+04	3.71E+04	-3.68E+04	3.68E+04
L3	-5.53E+04	4.02E+04	-5.16E+04	2.93E+04
L4	-5.53E+04	4.02E+04	-5.16E+04	2.93E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-677. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1353. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

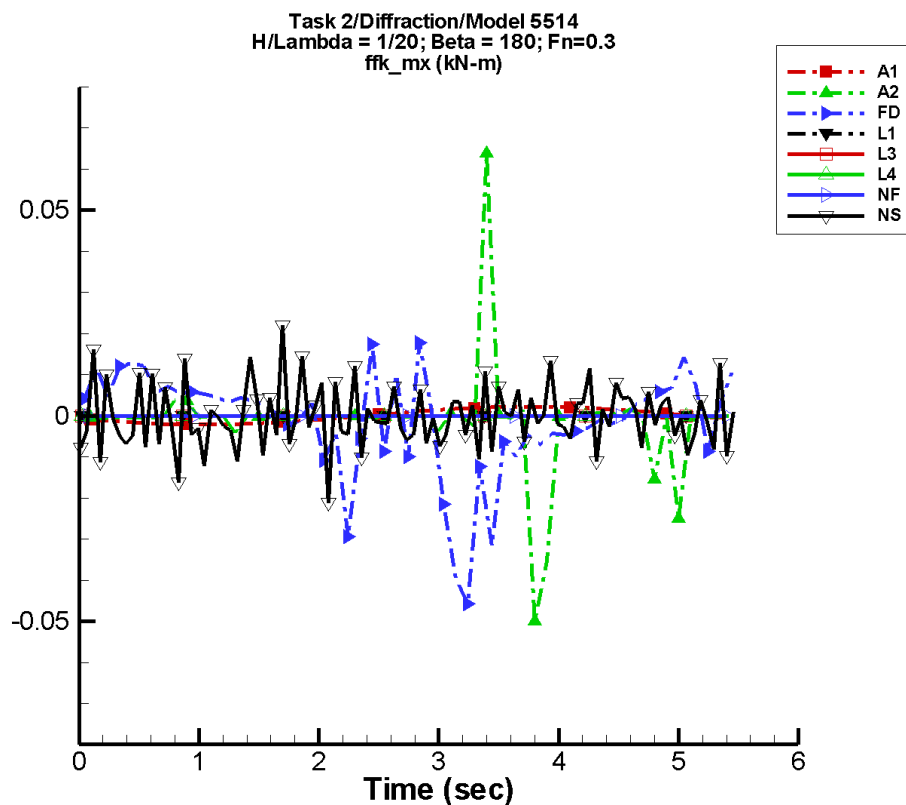
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.07E-06	7.18E-04	-151	1.42E-06	7
A2	-6.46	13.7	-152	15.6	150
FD	4.10E-03	1.04E-02	135	7.26E-03	149
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.70E-04	6.80E-05	41	2.30E-04	-47

Table H-1354. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.18E-04	7.17E-04	-6.95E-04	6.93E-04
A2	-530.	2.96E-04	-70.7	6.06
FD	-1.34E-02	3.48E-02	-5.68E-03	2.44E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.78E-03	3.97E-03	-9.58E-04	4.53E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-678. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

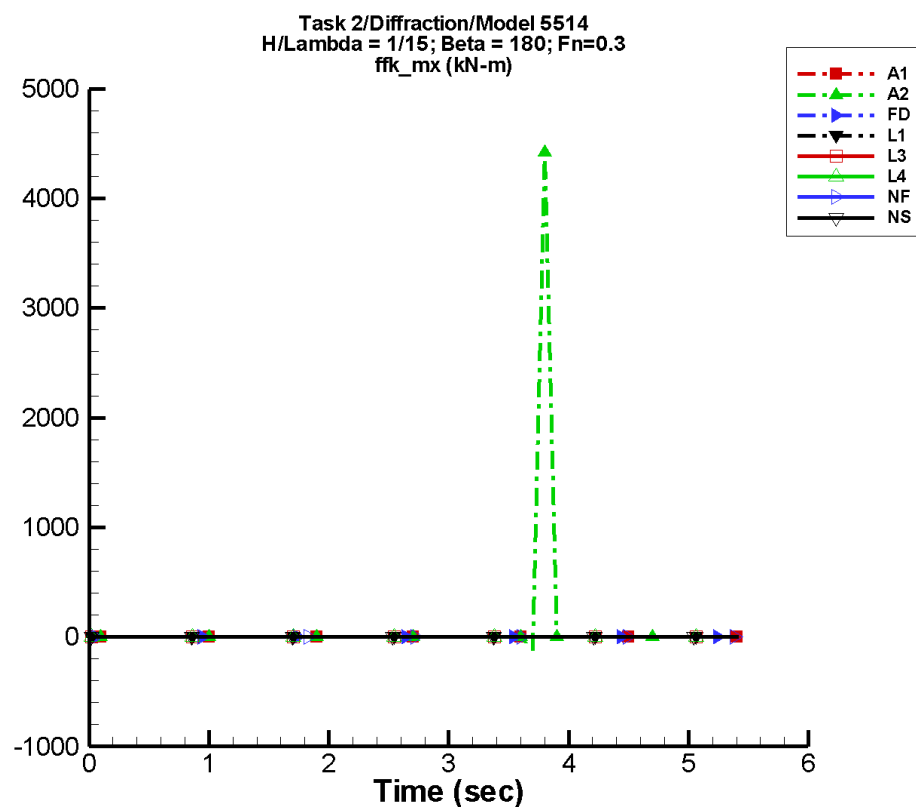
Table H-1355. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.20E-06	2.15E-03	-151	4.25E-06	7
A2	-1.46E-03	2.74E-03	-39	2.43E-03	62
FD	4.76E-04	1.01E-02	135	6.80E-03	-24
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.17E-04	5.38E-04	-175	8.93E-04	-117

Table H-1356. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.15E-03	2.15E-03	-2.08E-03	2.07E-03
A2	-5.01E-02	6.38E-02	-8.45E-03	5.48E-03
FD	-5.57E-02	6.79E-02	-2.75E-02	2.21E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.12E-02	2.19E-02	-5.28E-03	3.18E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-679. Time history of  $M_x^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

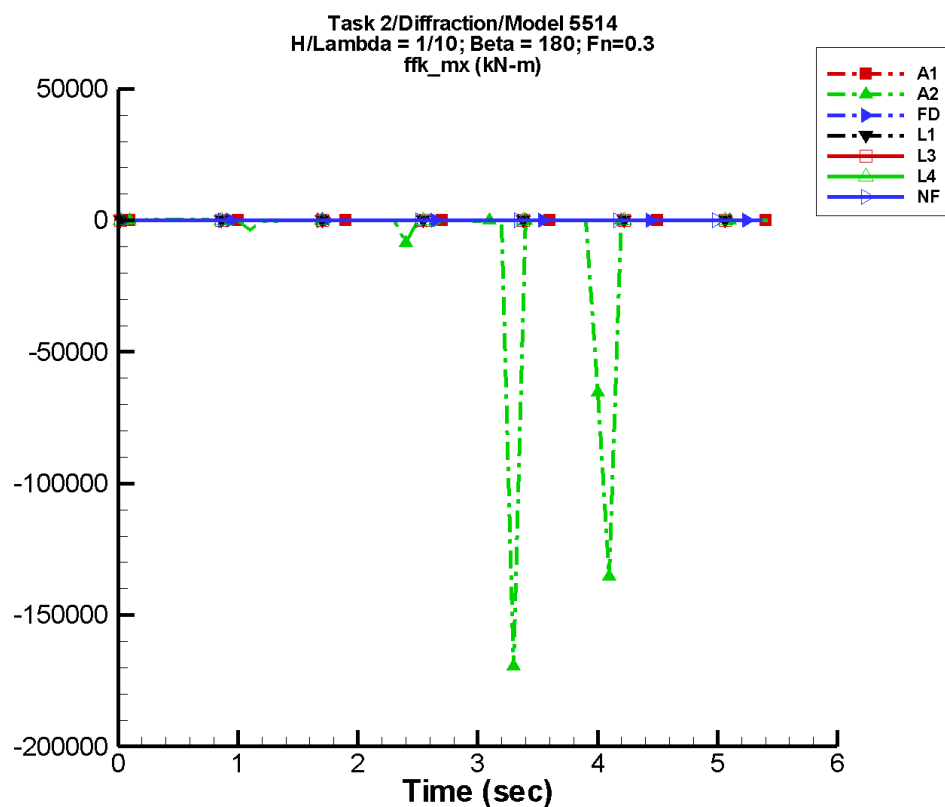
Table H-1357. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-4.27E-06	2.86E-03	-151	5.66E-06	7
A2	79.9	158.	-156	151.	-37
FD	1.37E-03	1.81E-02	110	2.30E-02	-32
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.99E-04	7.16E-04	47	6.90E-04	143

Table H-1358. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.86E-03	2.86E-03	-2.77E-03	2.76E-03
A2	-120.	4.42E+03	-49.6	574.
FD	-0.162	0.135	-4.80E-02	5.15E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.73E-02	2.79E-02	-6.57E-03	7.06E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-680. Time history of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

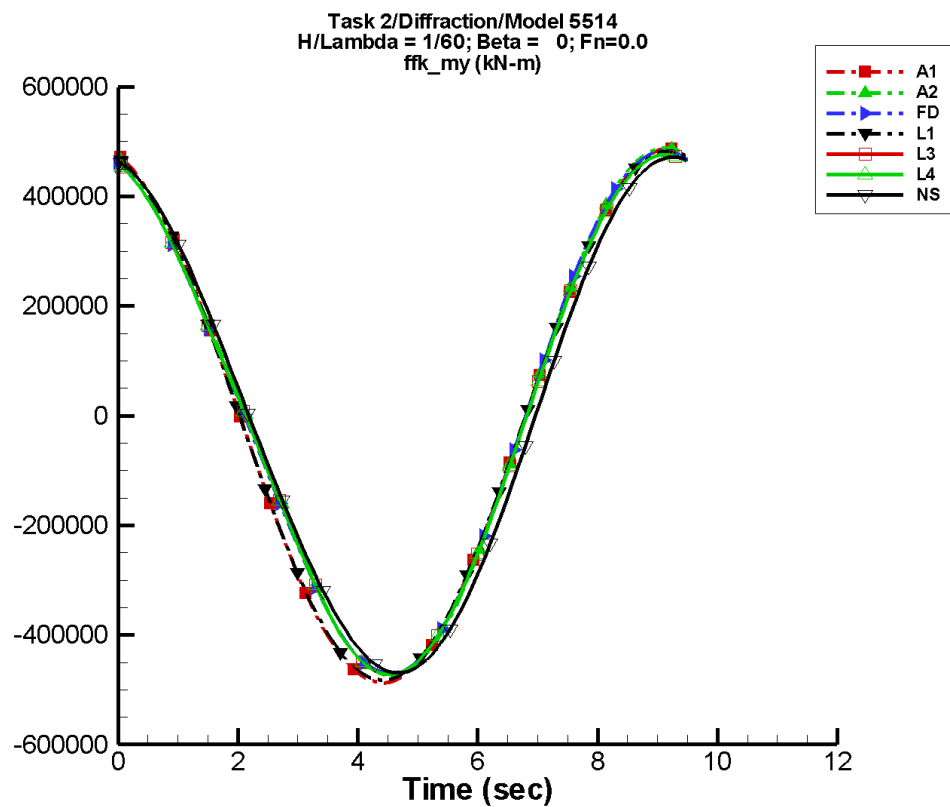
Table H-1359. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-6.41E-06	4.30E-03	-151	8.50E-06	7
A2	-7.05E+03	1.23E+04	33	8.06E+03	153
FD	-0.185	0.432	20	0.404	125
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1360. Minimum and maximum of  $M_x^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.29E-03	4.29E-03	-4.16E-03	4.15E-03
A2	-1.69E+05	512.	-2.69E+04	2.07E+03
FD	-21.4	0.471	-2.86	0.320
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-681. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1361. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

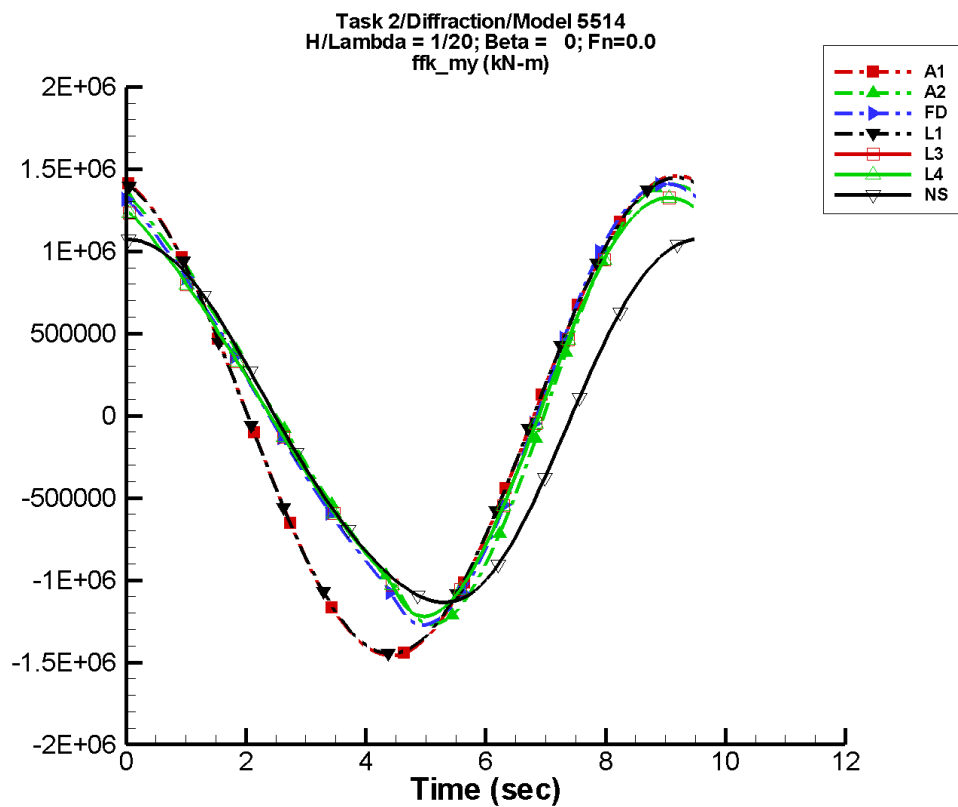
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-387.	4.88E+05	98	579.	39
A2	1.11E+04	4.76E+05	97	2.07E+04	-157
FD	8.91E+03	4.72E+05	96	2.10E+04	-157
L1	-55.7	4.82E+05	100	90.1	-27
L3	6.78E+03	4.68E+05	98	1.90E+04	-151
L4	6.78E+03	4.68E+05	98	1.90E+04	-151
NF	—	—	—	—	—
NS	241.	4.68E+05	97	1.60E+04	-173

Table H-1362. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.88E+05	4.87E+05	-4.82E+05	4.82E+05
A2	-4.74E+05	4.89E+05	-4.69E+05	4.83E+05
FD	-4.71E+05	4.82E+05	-4.65E+05	4.77E+05
L1	-4.83E+05	4.83E+05	-4.81E+05	4.81E+05
L3	-4.72E+05	4.76E+05	-4.70E+05	4.74E+05
L4	-4.72E+05	4.76E+05	-4.70E+05	4.74E+05
NF	—	—	—	—
NS	-4.69E+05	4.72E+05	-4.64E+05	4.67E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-682. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

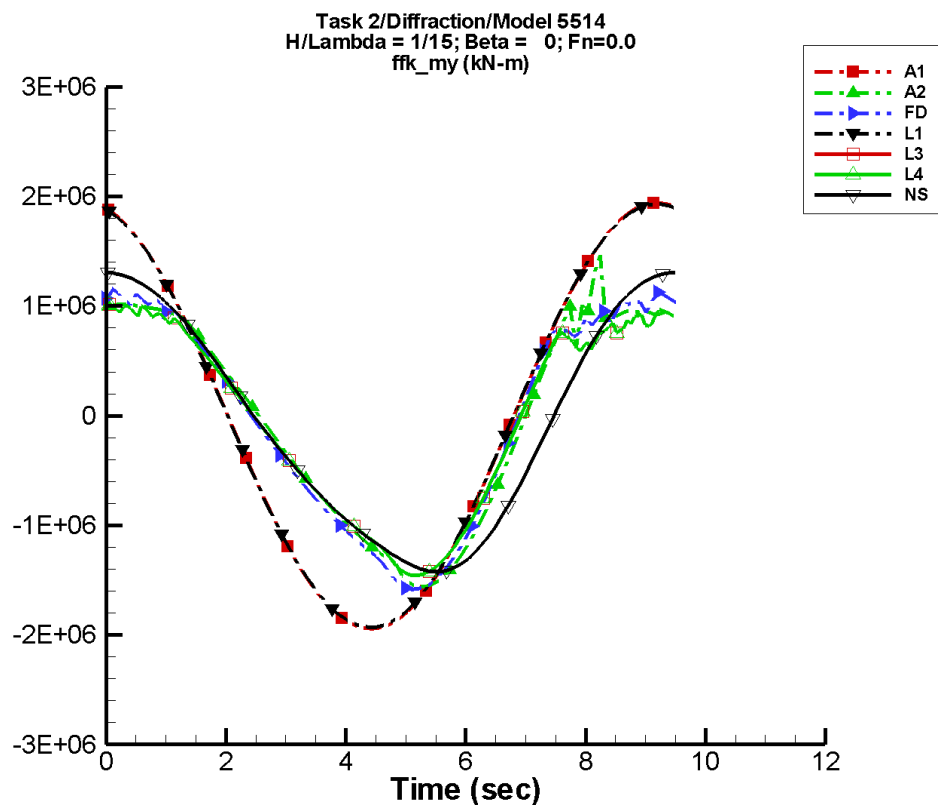
Table H-1363. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.16E+03	1.46E+06	98	1.73E+03	39
A2	1.09E+05	1.26E+06	87	1.94E+05	178
FD	1.11E+05	1.26E+06	91	1.85E+05	-176
L1	-167.	1.45E+06	100	271.	-27
L3	9.45E+04	1.20E+06	92	1.67E+05	-172
L4	9.45E+04	1.20E+06	92	1.67E+05	-172
NF	—	—	—	—	—
NS	-4.28E+04	1.10E+06	81	8.36E+04	150

Table H-1364. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+06	1.46E+06	-1.44E+06	1.44E+06
A2	-1.27E+06	1.41E+06	-1.24E+06	1.39E+06
FD	-1.27E+06	1.41E+06	-1.24E+06	1.39E+06
L1	-1.45E+06	1.45E+06	-1.44E+06	1.44E+06
L3	-1.22E+06	1.32E+06	-1.21E+06	1.32E+06
L4	-1.22E+06	1.32E+06	-1.21E+06	1.32E+06
NF	—	—	—	—
NS	-1.14E+06	1.07E+06	-1.12E+06	1.07E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-683. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

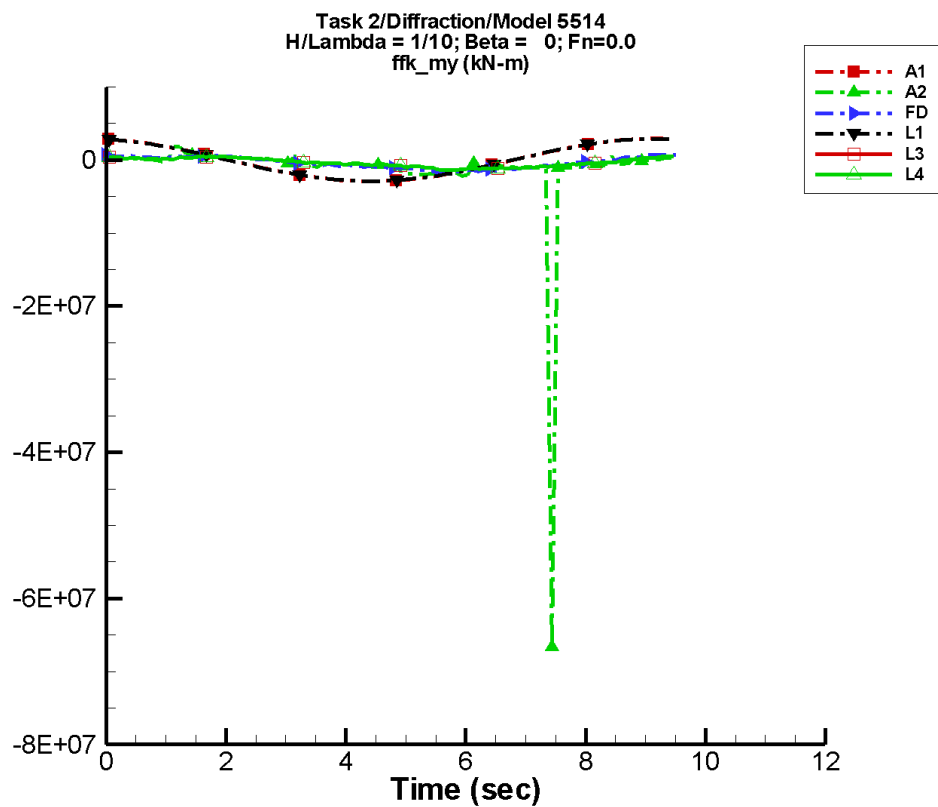
Table H-1365. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.54E+03	1.94E+06	98	2.30E+03	39
A2	-3.97E+03	1.29E+06	83	2.52E+05	-137
FD	-1.06E+04	1.31E+06	86	1.88E+05	-135
L1	-223.	1.93E+06	100	361.	-27
L3	-3.08E+04	1.19E+06	86	1.73E+05	-123
L4	-3.08E+04	1.19E+06	86	1.73E+05	-123
NF	—	—	—	—	—
NS	-6.47E+04	1.35E+06	80	1.55E+05	148

Table H-1366. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.94E+06	1.94E+06	-1.92E+06	1.92E+06
A2	-1.56E+06	1.46E+06	-1.51E+06	1.04E+06
FD	-1.58E+06	1.18E+06	-1.54E+06	1.14E+06
L1	-1.93E+06	1.93E+06	-1.92E+06	1.92E+06
L3	-1.46E+06	1.02E+06	-1.44E+06	1.01E+06
L4	-1.46E+06	1.02E+06	-1.44E+06	1.01E+06
NF	—	—	—	—
NS	-1.42E+06	1.31E+06	-1.41E+06	1.31E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-684. Time history of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

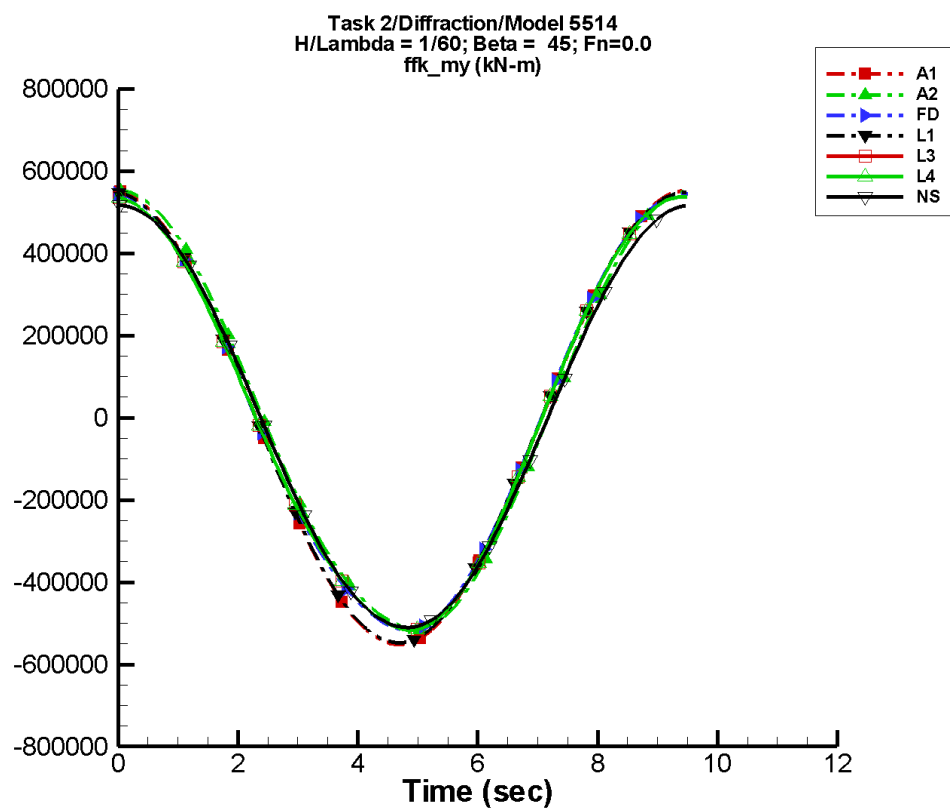
Table H-1367. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.32E+03	2.92E+06	98	3.46E+03	39
A2	-1.20E+06	2.06E+06	4	1.16E+06	58
FD	-3.86E+05	1.03E+06	52	1.31E+05	164
L1	-334.	2.89E+06	100	540.	-27
L3	-3.55E+05	7.88E+05	41	1.02E+05	154
L4	-3.55E+05	7.88E+05	41	1.02E+05	154
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1368. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.92E+06	2.92E+06	-2.88E+06	2.88E+06
A2	-6.67E+07	1.83E+06	-9.83E+06	8.16E+05
FD	-1.73E+06	6.83E+05	-1.58E+06	6.35E+05
L1	-2.90E+06	2.90E+06	-2.88E+06	2.88E+06
L3	-1.41E+06	4.91E+05	-1.34E+06	4.43E+05
L4	-1.41E+06	4.91E+05	-1.34E+06	4.43E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-685. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1369. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

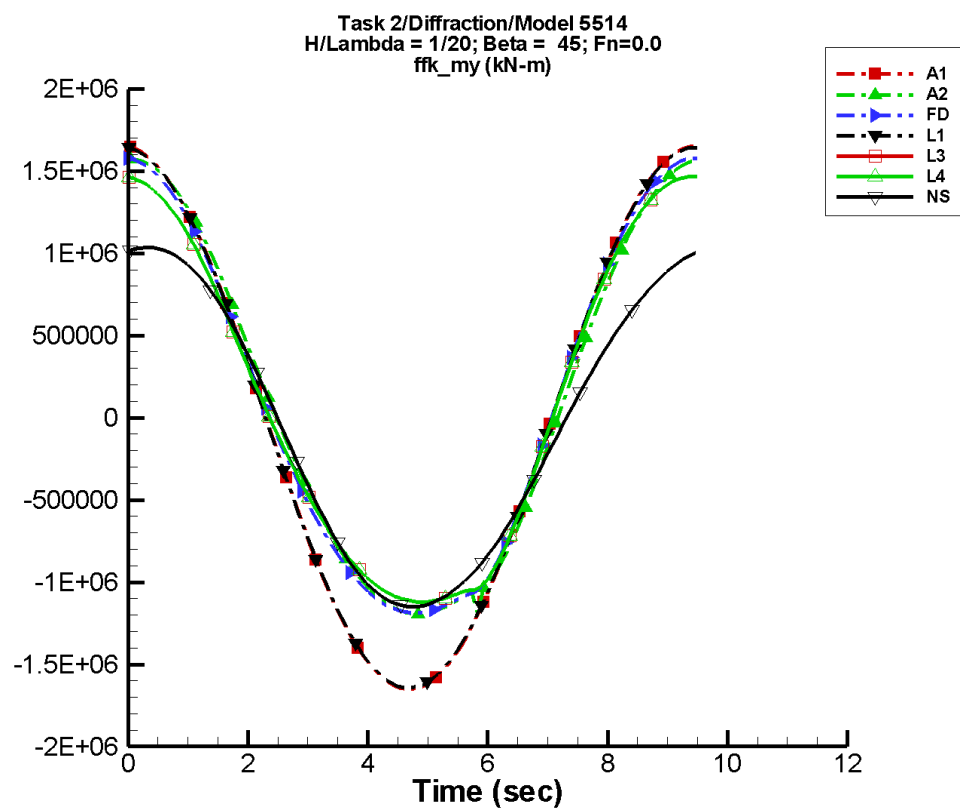
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-522.	5.52E+05	88	723.	31
A2	1.14E+04	5.35E+05	84	1.19E+04	119
FD	9.32E+03	5.31E+05	87	1.13E+04	127
L1	-316.	5.48E+05	90	419.	44
L3	6.65E+03	5.28E+05	89	1.38E+04	152
L4	6.65E+03	5.28E+05	89	1.38E+04	152
NF	—	—	—	—	—
NS	-77.4	5.16E+05	89	3.47E+03	112

Table H-1370. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.52E+05	5.52E+05	-5.46E+05	5.48E+05
A2	-5.22E+05	5.52E+05	-5.10E+05	5.52E+05
FD	-5.16E+05	5.45E+05	-5.10E+05	5.41E+05
L1	-5.48E+05	5.48E+05	-5.46E+05	5.46E+05
L3	-5.17E+05	5.37E+05	-5.15E+05	5.35E+05
L4	-5.17E+05	5.37E+05	-5.15E+05	5.35E+05
NF	—	—	—	—
NS	-5.10E+05	5.17E+05	-5.05E+05	5.18E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-686. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

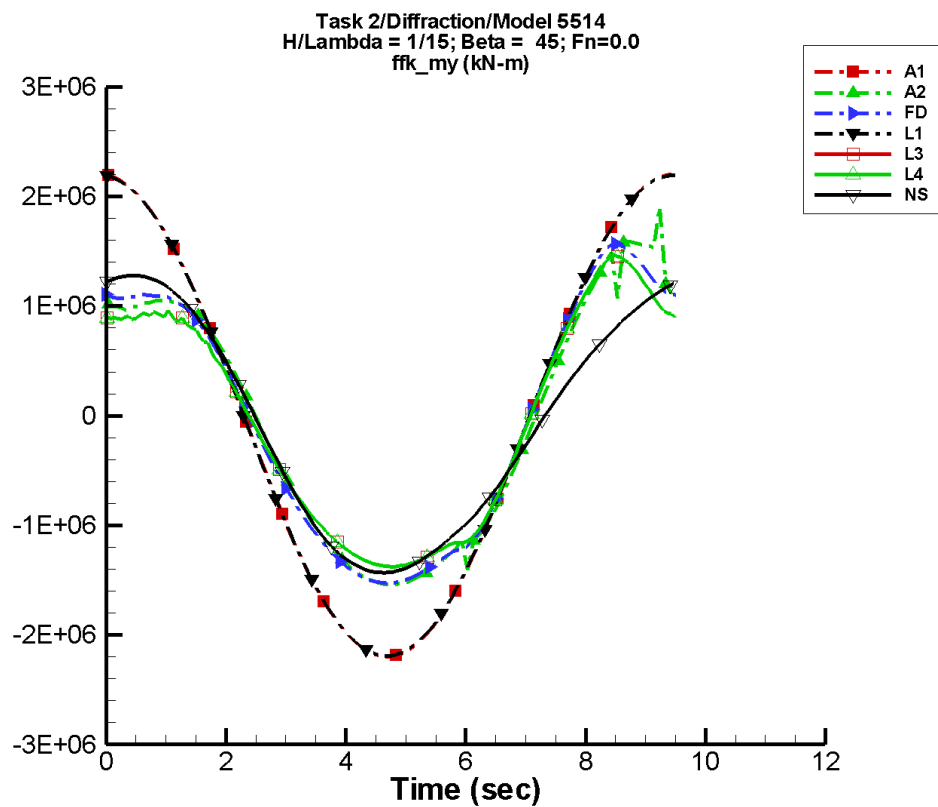
Table H-1371. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.56E+03	1.65E+06	88	2.16E+03	31
A2	1.07E+05	1.41E+06	82	8.61E+04	101
FD	1.09E+05	1.42E+06	86	9.38E+04	110
L1	-949.	1.64E+06	90	1.26E+03	44
L3	9.62E+04	1.33E+06	87	1.03E+05	128
L4	9.62E+04	1.33E+06	87	1.03E+05	128
NF	—	—	—	—	—
NS	-4.27E+04	1.10E+06	84	5.63E+04	-32

Table H-1372. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.65E+06	1.65E+06	-1.63E+06	1.64E+06
A2	-1.19E+06	1.57E+06	-1.18E+06	1.57E+06
FD	-1.19E+06	1.58E+06	-1.18E+06	1.57E+06
L1	-1.64E+06	1.64E+06	-1.64E+06	1.64E+06
L3	-1.12E+06	1.47E+06	-1.12E+06	1.46E+06
L4	-1.12E+06	1.47E+06	-1.12E+06	1.46E+06
NF	—	—	—	—
NS	-1.15E+06	1.04E+06	-1.14E+06	1.03E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-687. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

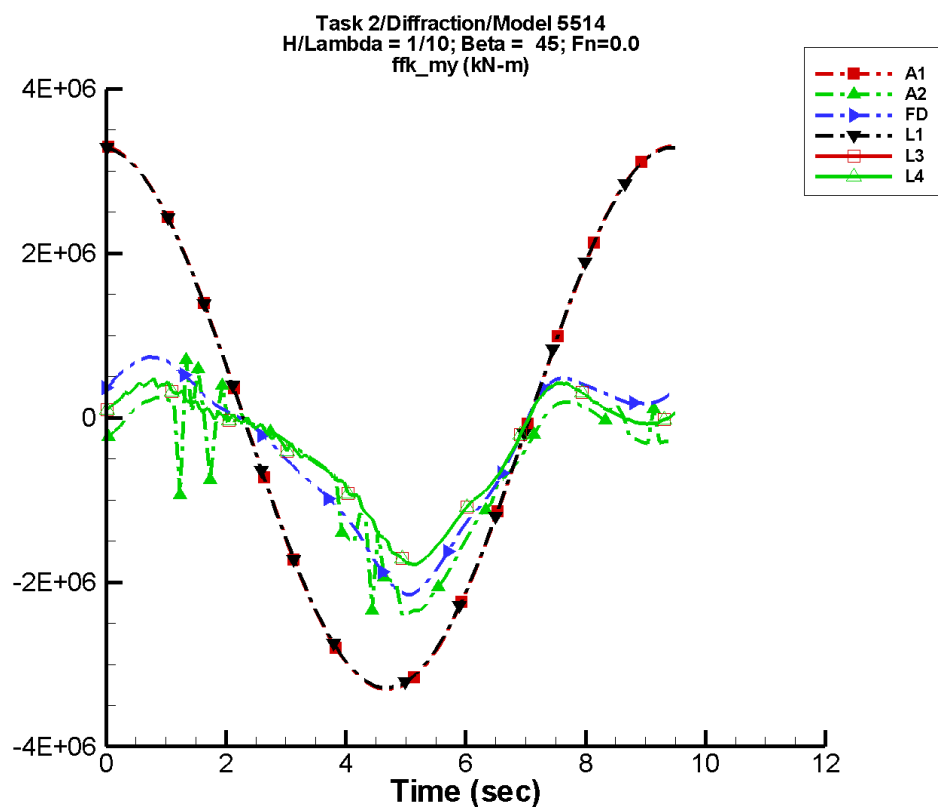
Table H-1373. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.08E+03	2.20E+06	88	2.88E+03	31
A2	-2.62E+04	1.49E+06	85	1.90E+05	-141
FD	-2.22E+04	1.52E+06	88	1.65E+05	-132
L1	-1.27E+03	2.19E+06	90	1.68E+03	44
L3	-3.04E+04	1.34E+06	89	2.00E+05	-139
L4	-3.04E+04	1.34E+06	89	2.00E+05	-139
NF	—	—	—	—	—
NS	-6.35E+04	1.35E+06	85	1.19E+05	-21

Table H-1374. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.20E+06	2.20E+06	-2.17E+06	2.18E+06
A2	-1.54E+06	1.91E+06	-1.52E+06	1.53E+06
FD	-1.53E+06	1.57E+06	-1.51E+06	1.49E+06
L1	-2.19E+06	2.19E+06	-2.18E+06	2.18E+06
L3	-1.38E+06	1.46E+06	-1.37E+06	1.43E+06
L4	-1.38E+06	1.46E+06	-1.37E+06	1.43E+06
NF	—	—	—	—
NS	-1.43E+06	1.28E+06	-1.42E+06	1.27E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-688. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

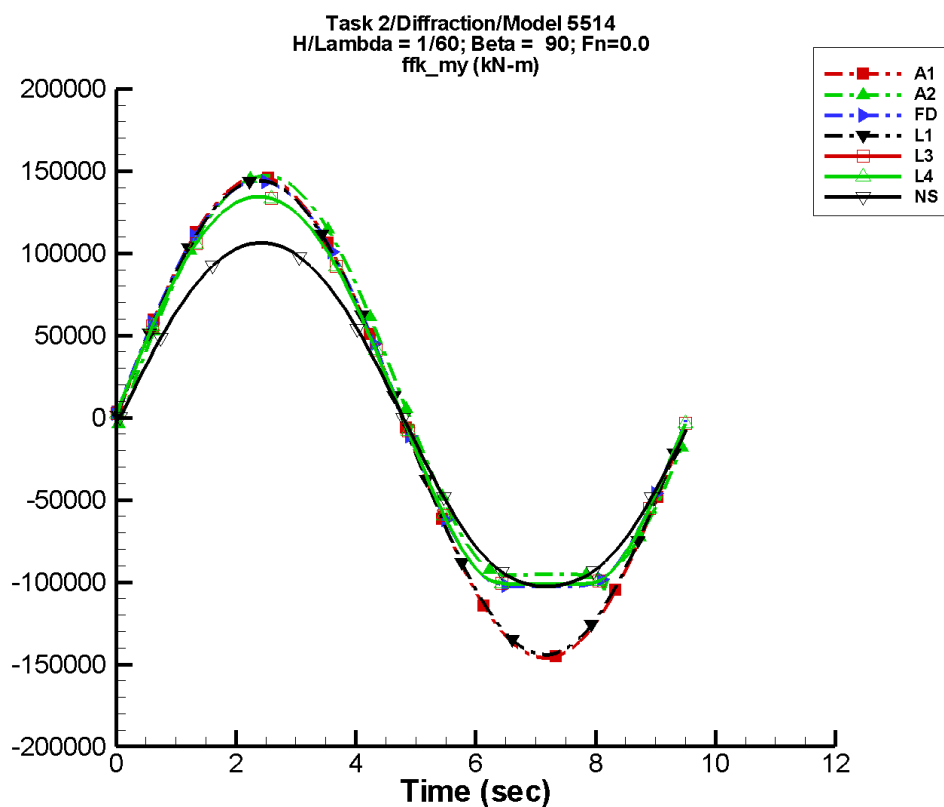
Table H-1375. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.12E+03	3.30E+06	88	4.33E+03	31
A2	-5.56E+05	1.00E+06	76	5.04E+05	-118
FD	-3.54E+05	1.17E+06	80	3.33E+05	-114
L1	-1.90E+03	3.29E+06	90	2.52E+03	44
L3	-3.40E+05	8.52E+05	79	3.50E+05	-114
L4	-3.40E+05	8.52E+05	79	3.50E+05	-114
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1376. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.30E+06	3.30E+06	-3.26E+06	3.28E+06
A2	-2.42E+06	1.41E+06	-2.28E+06	2.32E+05
FD	-2.15E+06	7.68E+05	-2.07E+06	7.08E+05
L1	-3.29E+06	3.29E+06	-3.27E+06	3.27E+06
L3	-1.78E+06	4.85E+05	-1.75E+06	4.14E+05
L4	-1.78E+06	4.85E+05	-1.75E+06	4.14E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-689. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1377. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

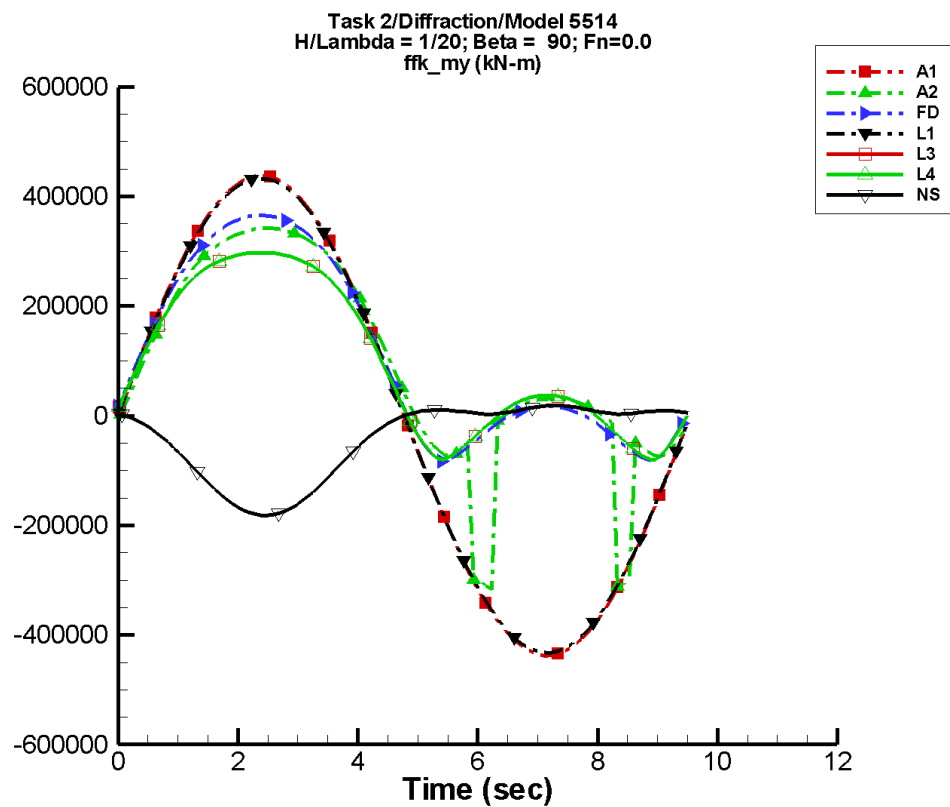
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-106.	1.46E+05	-5	166.	-28
A2	1.18E+04	1.29E+05	-9	1.14E+04	-104
FD	9.30E+03	1.30E+05	-6	8.09E+03	-101
L1	63.3	1.44E+05	-4	114.	29
L3	7.30E+03	1.24E+05	-3	7.20E+03	-105
L4	7.30E+03	1.24E+05	-3	7.20E+03	-105
NF	—	—	—	—	—
NS	-433.	1.07E+05	-2	1.46E+03	-86

Table H-1378. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+05	1.46E+05	-1.45E+05	1.45E+05
A2	-1.05E+05	1.47E+05	-9.63E+04	1.45E+05
FD	-1.03E+05	1.44E+05	-1.03E+05	1.42E+05
L1	-1.44E+05	1.44E+05	-1.44E+05	1.44E+05
L3	-1.01E+05	1.35E+05	-1.01E+05	1.34E+05
L4	-1.01E+05	1.35E+05	-1.01E+05	1.34E+05
NF	—	—	—	—
NS	-1.03E+05	1.06E+05	-1.02E+05	1.06E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-690. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

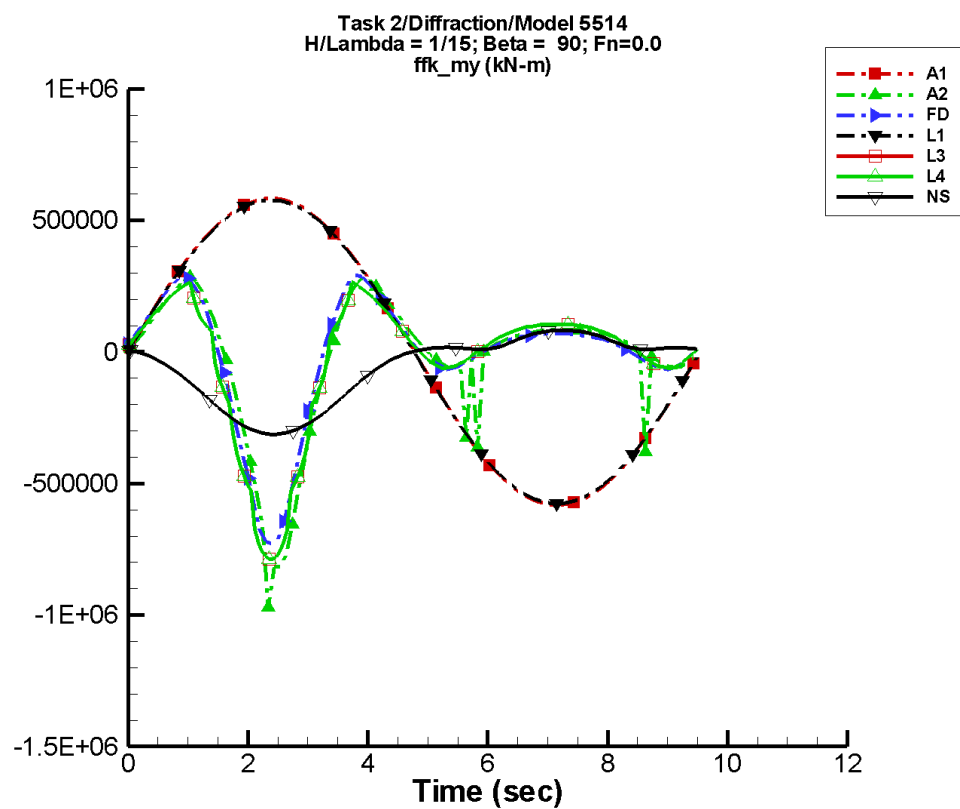
Table H-1379. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-318.	4.38E+05	-5	497.	-28
A2	9.21E+04	2.18E+05	-6	8.10E+04	-108
FD	1.12E+05	2.05E+05	-5	7.97E+04	-101
L1	190.	4.32E+05	-4	341.	29
L3	9.90E+04	1.63E+05	-1	7.57E+04	-101
L4	9.90E+04	1.63E+05	-1	7.57E+04	-101
NF	—	—	—	—	—
NS	-4.23E+04	8.53E+04	176	4.44E+04	83

Table H-1380. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.38E+05	4.37E+05	-4.33E+05	4.33E+05
A2	-3.17E+05	3.42E+05	-1.75E+05	3.39E+05
FD	-8.27E+04	3.66E+05	-7.03E+04	3.63E+05
L1	-4.32E+05	4.32E+05	-4.31E+05	4.31E+05
L3	-8.00E+04	2.98E+05	-7.42E+04	2.97E+05
L4	-8.00E+04	2.98E+05	-7.42E+04	2.97E+05
NF	—	—	—	—
NS	-1.82E+05	1.89E+04	-1.79E+05	1.75E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-691. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

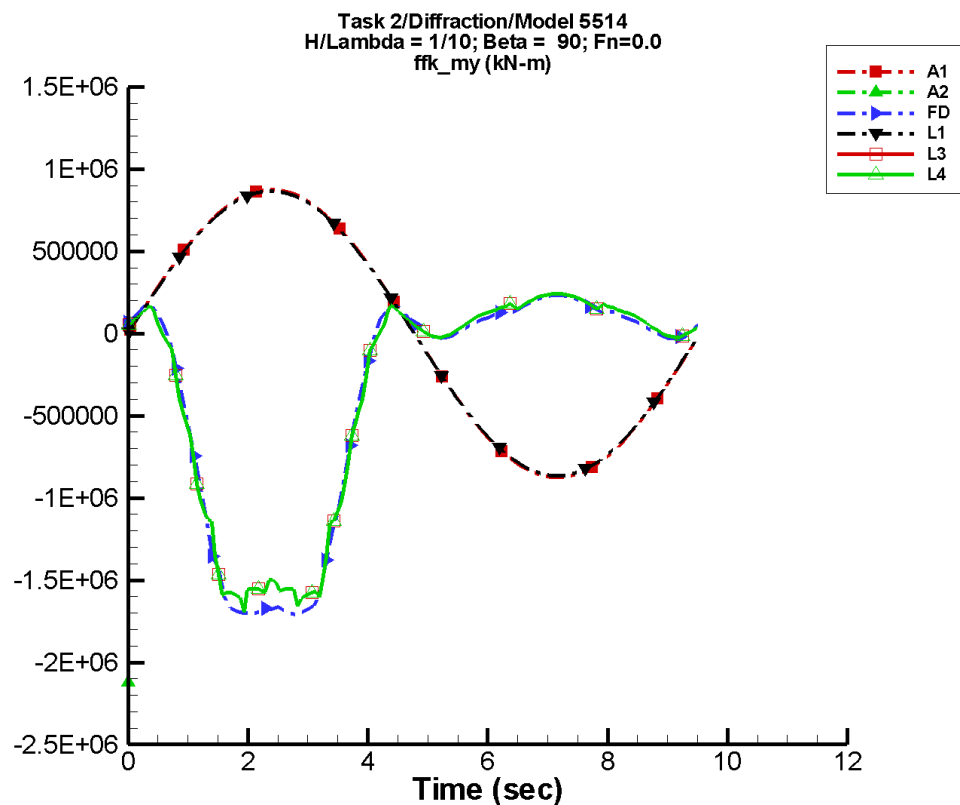
Table H-1381. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-424.	5.83E+05	-5	661.	-28
A2	-1.33E+04	9.98E+04	156	1.57E+05	61
FD	1.05E+03	1.04E+05	177	2.17E+05	79
L1	253.	5.77E+05	-4	455.	29
L3	-1.45E+04	1.73E+05	168	1.76E+05	90
L4	-1.45E+04	1.73E+05	168	1.76E+05	90
NF	—	—	—	—	—
NS	-6.18E+04	1.63E+05	176	6.50E+04	84

Table H-1382. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.83E+05	5.82E+05	-5.76E+05	5.76E+05
A2	-9.71E+05	2.87E+05	-7.06E+05	2.39E+05
FD	-7.31E+05	2.95E+05	-6.33E+05	2.50E+05
L1	-5.77E+05	5.76E+05	-5.74E+05	5.74E+05
L3	-7.87E+05	2.67E+05	-7.54E+05	2.30E+05
L4	-7.87E+05	2.67E+05	-7.54E+05	2.30E+05
NF	—	—	—	—
NS	-3.13E+05	8.15E+04	-3.10E+05	8.03E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-692. Time history of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

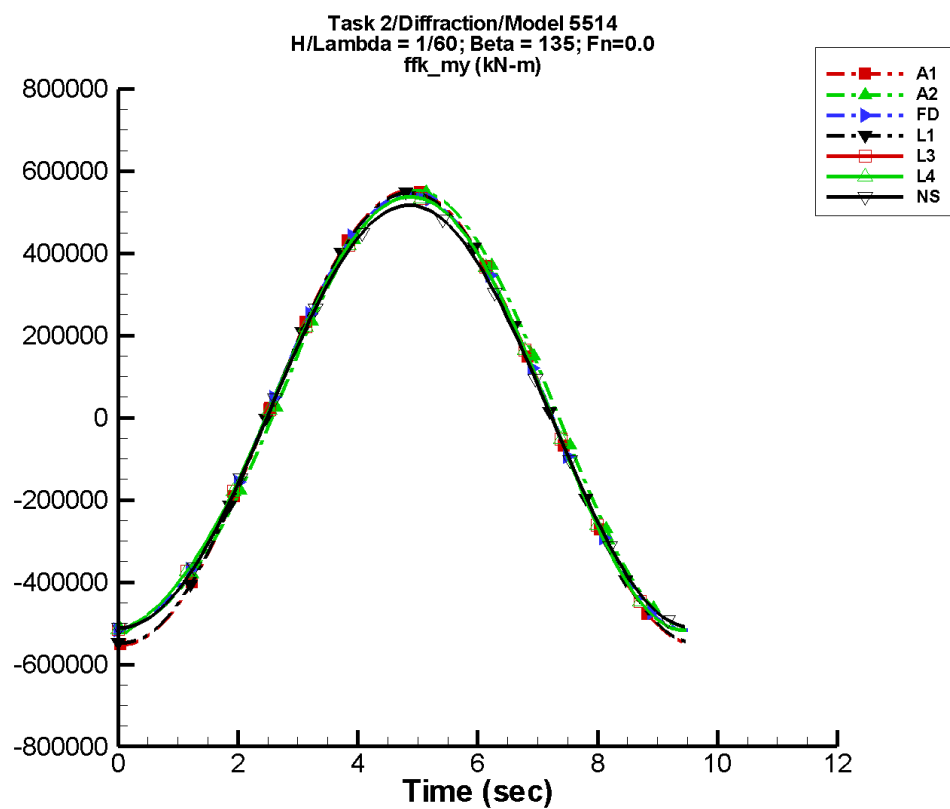
Table H-1383. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-636.	8.75E+05	-5	994.	-28
A2	-2.45E+06	1.28E+07	82	6.86E+06	167
FD	-3.55E+05	8.42E+05	174	5.41E+05	78
L1	380.	8.65E+05	-4	683.	29
L3	-3.34E+05	8.40E+05	174	4.49E+05	87
L4	-3.34E+05	8.40E+05	174	4.49E+05	87
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1384. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.75E+05	8.75E+05	-8.66E+05	8.65E+05
A2	-2.14E+06	-2.12E+06	-2.14E+06	-2.12E+06
FD	-1.71E+06	2.34E+05	-1.70E+06	2.19E+05
L1	-8.65E+05	8.65E+05	-8.62E+05	8.61E+05
L3	-1.69E+06	2.42E+05	-1.60E+06	2.39E+05
L4	-1.69E+06	2.42E+05	-1.60E+06	2.39E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-693. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1385. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

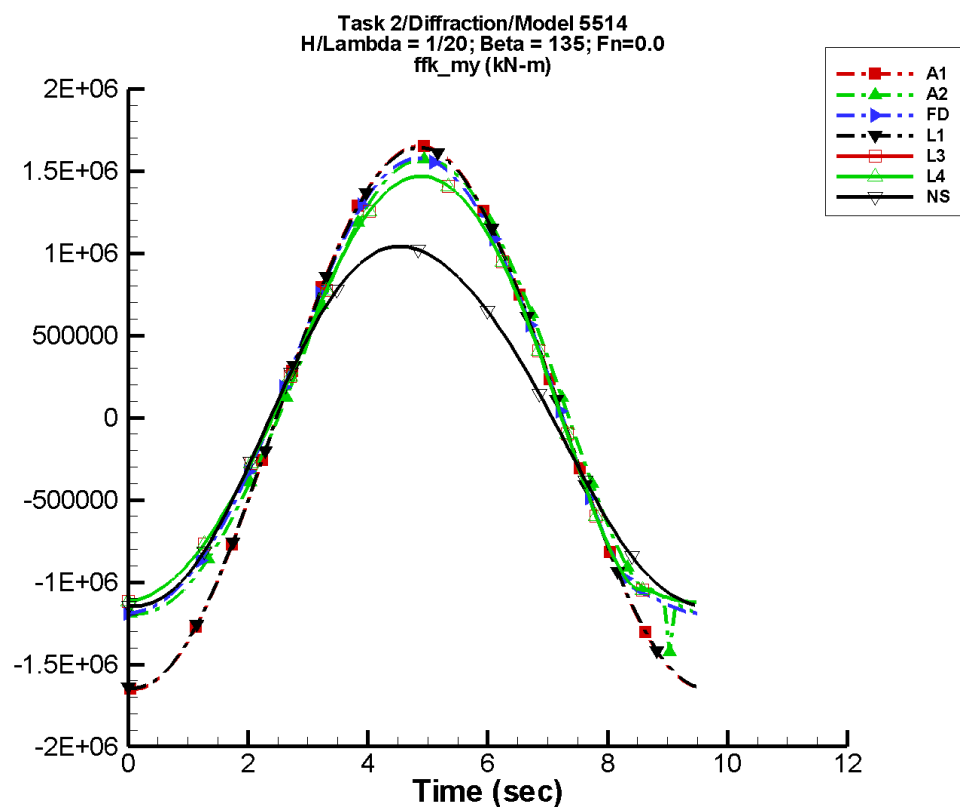
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	569.	5.52E+05	-98	763.	-154
A2	1.26E+04	5.33E+05	-101	1.28E+04	22
FD	9.50E+03	5.31E+05	-98	1.16E+04	31
L1	1.43	5.48E+05	-97	25.0	-8
L3	7.16E+03	5.27E+05	-96	1.50E+04	18
L4	7.16E+03	5.27E+05	-96	1.50E+04	18
NF	—	—	—	—	—
NS	103.	5.15E+05	-93	4.13E+03	56

Table H-1386. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.52E+05	5.52E+05	-5.53E+05	5.46E+05
A2	-5.21E+05	5.52E+05	-5.15E+05	5.46E+05
FD	-5.16E+05	5.45E+05	-5.14E+05	5.39E+05
L1	-5.48E+05	5.48E+05	-5.52E+05	5.46E+05
L3	-5.17E+05	5.37E+05	-5.15E+05	5.35E+05
L4	-5.17E+05	5.37E+05	-5.15E+05	5.35E+05
NF	—	—	—	—
NS	-5.11E+05	5.17E+05	-5.12E+05	5.12E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-694. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

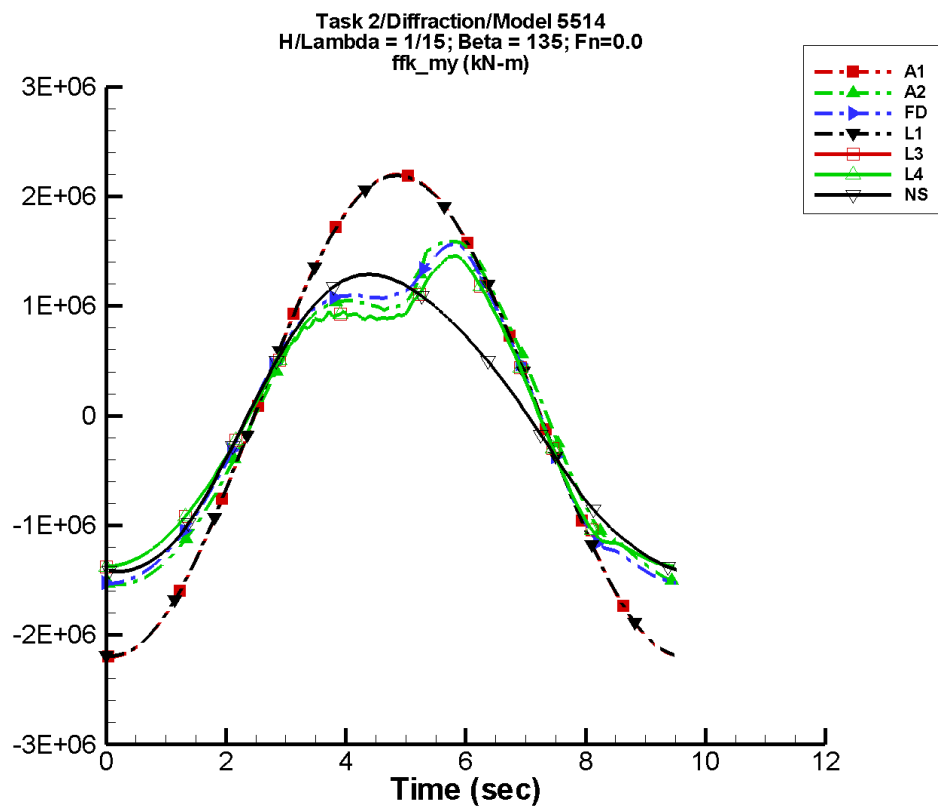
Table H-1387. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.70E+03	1.65E+06	-98	2.28E+03	-154
A2	1.08E+05	1.42E+06	-100	8.76E+04	42
FD	1.11E+05	1.42E+06	-97	9.65E+04	49
L1	4.61	1.64E+06	-97	75.5	-8
L3	9.69E+04	1.33E+06	-95	1.06E+05	40
L4	9.69E+04	1.33E+06	-95	1.06E+05	40
NF	—	—	—	—	—
NS	-4.27E+04	1.10E+06	-89	5.45E+04	-164

Table H-1388. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.65E+06	1.65E+06	-1.65E+06	1.63E+06
A2	-1.43E+06	1.57E+06	-1.20E+06	1.56E+06
FD	-1.19E+06	1.58E+06	-1.19E+06	1.56E+06
L1	-1.64E+06	1.64E+06	-1.65E+06	1.64E+06
L3	-1.12E+06	1.47E+06	-1.12E+06	1.46E+06
L4	-1.12E+06	1.47E+06	-1.12E+06	1.46E+06
NF	—	—	—	—
NS	-1.14E+06	1.04E+06	-1.15E+06	1.03E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-695. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

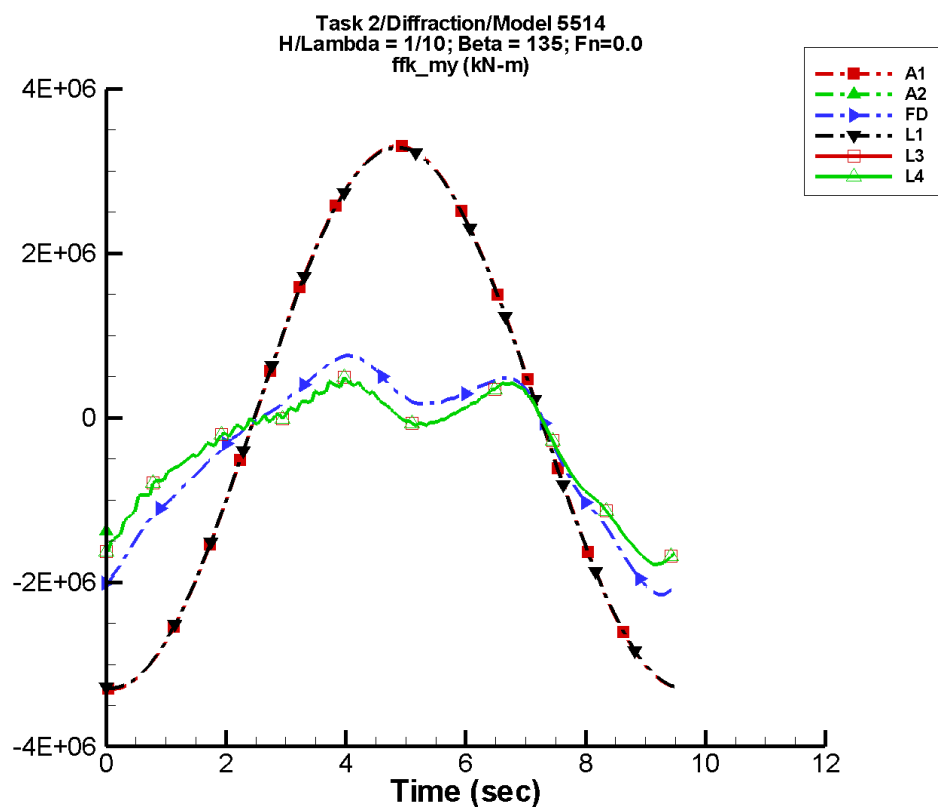
Table H-1389. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.27E+03	2.20E+06	-98	3.04E+03	-154
A2	-1.97E+04	1.51E+06	-104	1.55E+05	-66
FD	-1.07E+04	1.52E+06	-99	1.46E+05	-66
L1	5.84	2.19E+06	-97	100.	-8
L3	-2.74E+04	1.36E+06	-97	1.67E+05	-55
L4	-2.74E+04	1.36E+06	-97	1.67E+05	-55
NF	—	—	—	—	—
NS	-6.42E+04	1.36E+06	-88	1.17E+05	-172

Table H-1390. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.20E+06	2.20E+06	-2.20E+06	2.17E+06
A2	-1.54E+06	1.59E+06	-1.54E+06	1.55E+06
FD	-1.53E+06	1.57E+06	-1.54E+06	1.49E+06
L1	-2.19E+06	2.19E+06	-2.21E+06	2.18E+06
L3	-1.38E+06	1.46E+06	-1.38E+06	1.42E+06
L4	-1.38E+06	1.46E+06	-1.38E+06	1.42E+06
NF	—	—	—	—
NS	-1.42E+06	1.29E+06	-1.43E+06	1.28E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-696. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

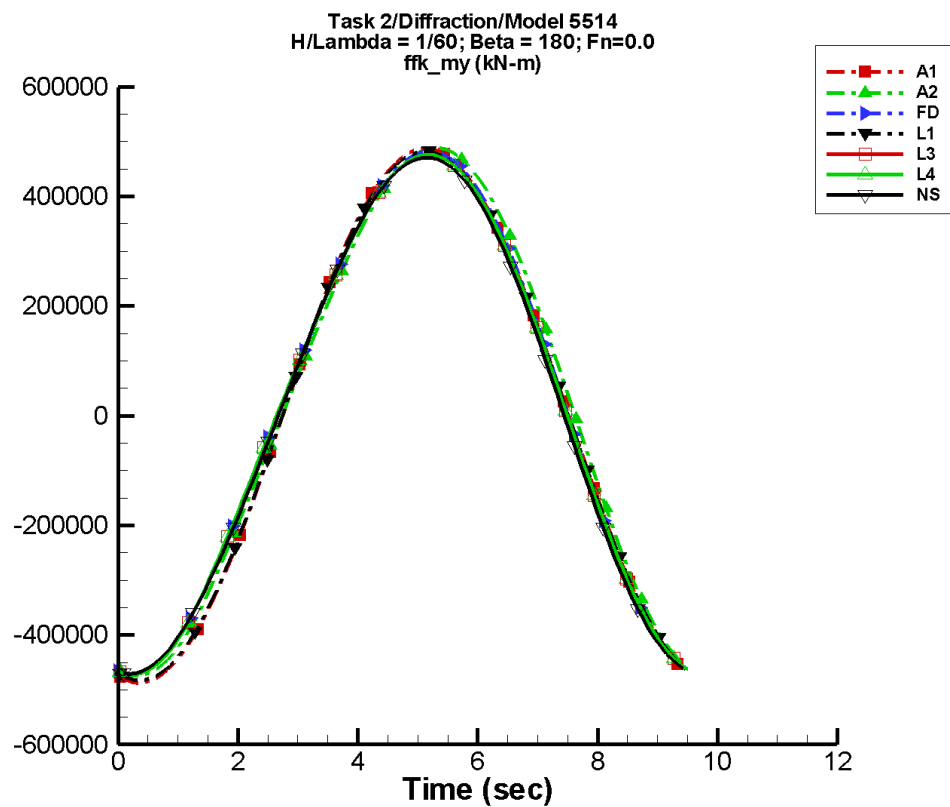
Table H-1391. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.40E+03	3.30E+06	-98	4.57E+03	-154
A2	2.67E+05	1.24E+06	-76	8.23E+05	-55
FD	-3.56E+05	1.16E+06	-91	3.34E+05	-88
L1	8.27	3.29E+06	-97	151.	-8
L3	-3.34E+05	8.26E+05	-87	3.21E+05	-74
L4	-3.34E+05	8.26E+05	-87	3.21E+05	-74
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1392. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.30E+06	3.30E+06	-3.31E+06	3.27E+06
A2	-1.38E+06	-1.25E+06	-1.38E+06	-1.25E+06
FD	-2.15E+06	7.70E+05	-2.07E+06	7.64E+05
L1	-3.29E+06	3.29E+06	-3.31E+06	3.27E+06
L3	-1.79E+06	4.93E+05	-1.75E+06	4.19E+05
L4	-1.79E+06	4.93E+05	-1.75E+06	4.19E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-697. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1393. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

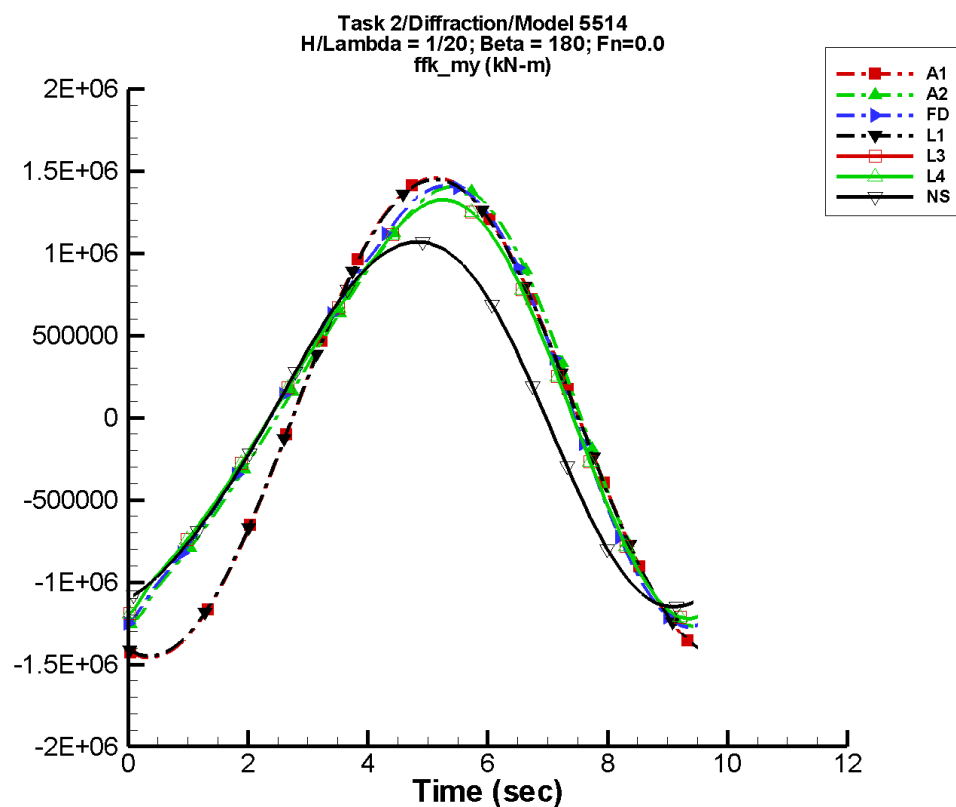
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	552.	4.88E+05	-108	718.	-160
A2	1.21E+04	4.76E+05	-110	2.12E+04	-58
FD	8.66E+03	4.72E+05	-108	2.13E+04	-47
L1	153.	4.83E+05	-107	242.	154
L3	6.76E+03	4.69E+05	-105	1.85E+04	-50
L4	6.76E+03	4.69E+05	-105	1.85E+04	-50
NF	—	—	—	—	—
NS	553.	4.68E+05	-101	1.61E+04	-23

Table H-1394. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.88E+05	4.88E+05	-4.83E+05	4.82E+05
A2	-4.74E+05	4.89E+05	-4.71E+05	4.83E+05
FD	-4.71E+05	4.82E+05	-4.75E+05	4.77E+05
L1	-4.82E+05	4.83E+05	-4.81E+05	4.81E+05
L3	-4.72E+05	4.76E+05	-4.72E+05	4.74E+05
L4	-4.72E+05	4.76E+05	-4.72E+05	4.74E+05
NF	—	—	—	—
NS	-4.71E+05	4.71E+05	-4.72E+05	4.66E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-698. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

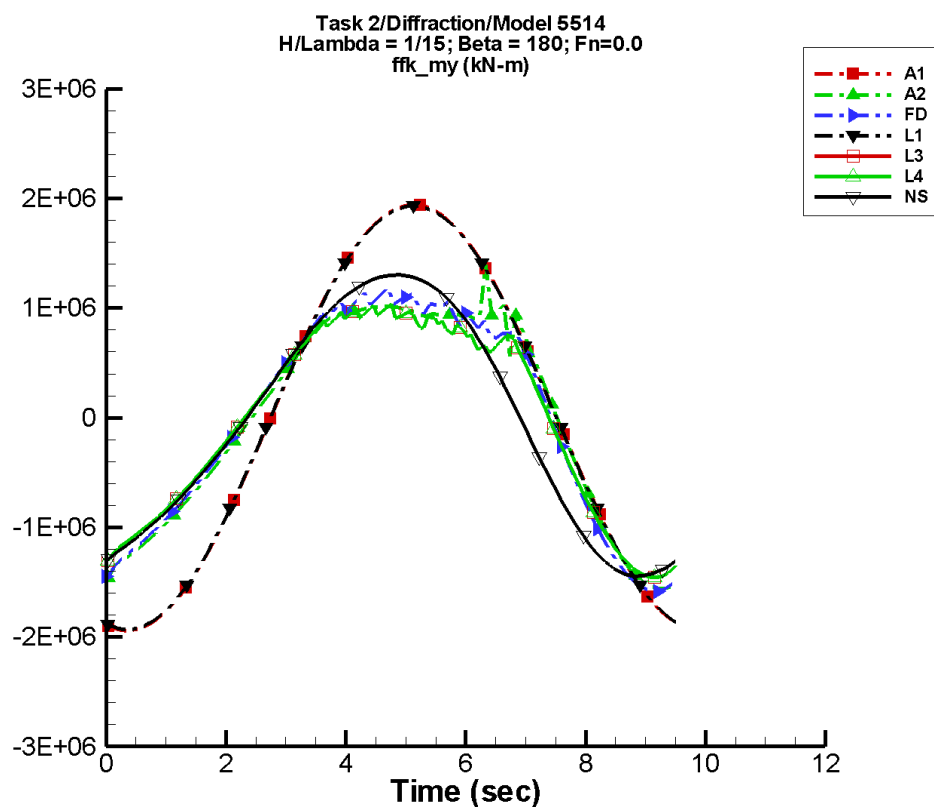
Table H-1395. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.65E+03	1.46E+06	-108	2.15E+03	-160
A2	1.08E+05	1.26E+06	-105	1.96E+05	-36
FD	1.11E+05	1.26E+06	-102	1.85E+05	-27
L1	459.	1.45E+06	-107	726.	154
L3	9.65E+04	1.19E+06	-99	1.71E+05	-22
L4	9.65E+04	1.19E+06	-99	1.71E+05	-22
NF	—	—	—	—	—
NS	-4.27E+04	1.10E+06	-85	8.74E+04	19

Table H-1396. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+06	1.46E+06	-1.45E+06	1.44E+06
A2	-1.54E+06	1.41E+06	-1.25E+06	1.39E+06
FD	-1.27E+06	1.41E+06	-1.24E+06	1.39E+06
L1	-1.45E+06	1.45E+06	-1.44E+06	1.44E+06
L3	-1.22E+06	1.32E+06	-1.21E+06	1.32E+06
L4	-1.22E+06	1.32E+06	-1.21E+06	1.32E+06
NF	—	—	—	—
NS	-1.15E+06	1.07E+06	-1.14E+06	1.06E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-699. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

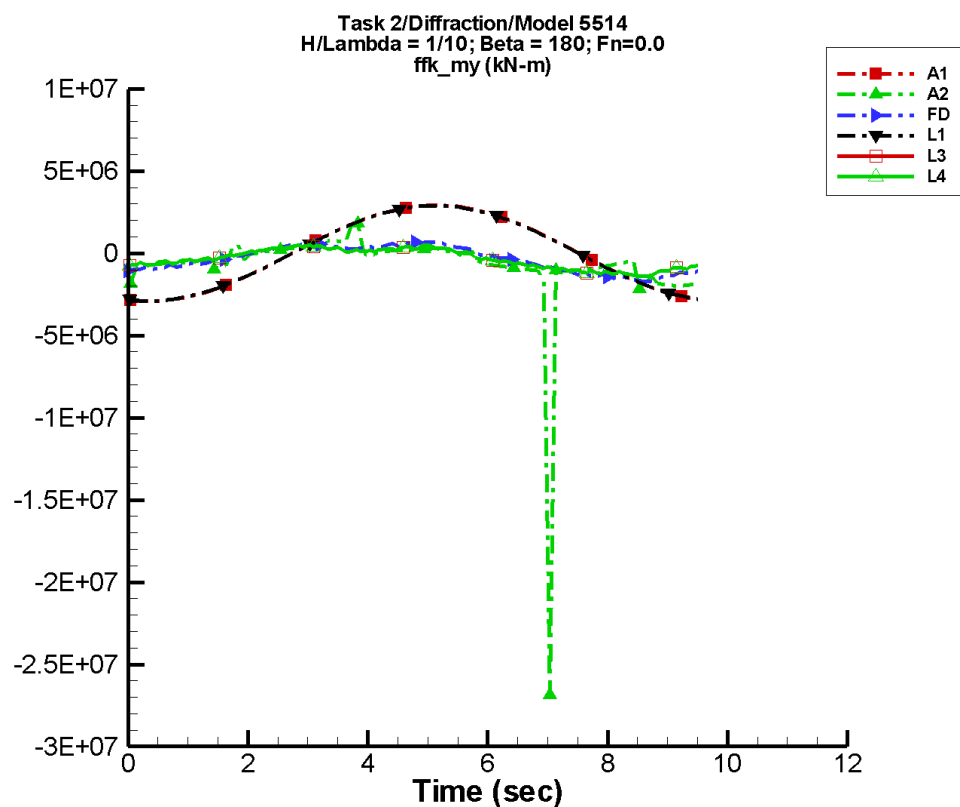
Table H-1397. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.20E+03	1.94E+06	-108	2.86E+03	-160
A2	-7.80E+03	1.26E+06	-101	2.41E+05	-73
FD	-8.10E+03	1.30E+06	-97	1.84E+05	-66
L1	612.	1.93E+06	-107	968.	154
L3	-2.79E+04	1.16E+06	-94	1.76E+05	-64
L4	-2.79E+04	1.16E+06	-94	1.76E+05	-64
NF	—	—	—	—	—
NS	-6.49E+04	1.35E+06	-83	1.63E+05	24

Table H-1398. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.94E+06	1.94E+06	-1.92E+06	1.92E+06
A2	-1.56E+06	1.39E+06	-1.52E+06	1.00E+06
FD	-1.58E+06	1.19E+06	-1.54E+06	1.10E+06
L1	-1.93E+06	1.93E+06	-1.92E+06	1.92E+06
L3	-1.46E+06	1.04E+06	-1.44E+06	9.80E+05
L4	-1.46E+06	1.04E+06	-1.44E+06	9.80E+05
NF	—	—	—	—
NS	-1.44E+06	1.30E+06	-1.43E+06	1.29E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-700. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

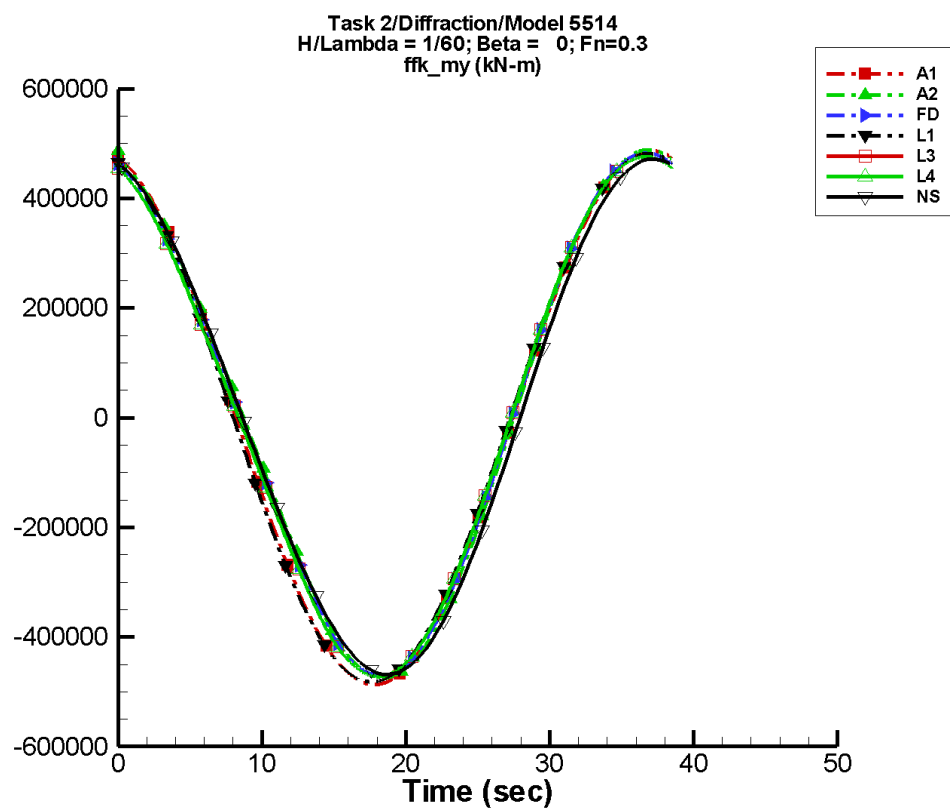
Table H-1399. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.30E+03	2.92E+06	-108	4.29E+03	-160
A2	-7.26E+05	1.37E+06	-36	4.58E+05	101
FD	-3.81E+05	1.02E+06	-63	1.31E+05	-2
L1	918.	2.90E+06	-107	1.45E+03	154
L3	-3.48E+05	8.03E+05	-50	8.10E+04	32
L4	-3.48E+05	8.03E+05	-50	8.10E+04	32
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1400. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.92E+06	2.92E+06	-2.89E+06	2.89E+06
A2	-2.69E+07	1.83E+06	-4.57E+06	7.79E+05
FD	-1.72E+06	6.88E+05	-1.58E+06	6.34E+05
L1	-2.89E+06	2.90E+06	-2.88E+06	2.88E+06
L3	-1.41E+06	4.89E+05	-1.34E+06	4.42E+05
L4	-1.41E+06	4.89E+05	-1.34E+06	4.42E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-701. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1401. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

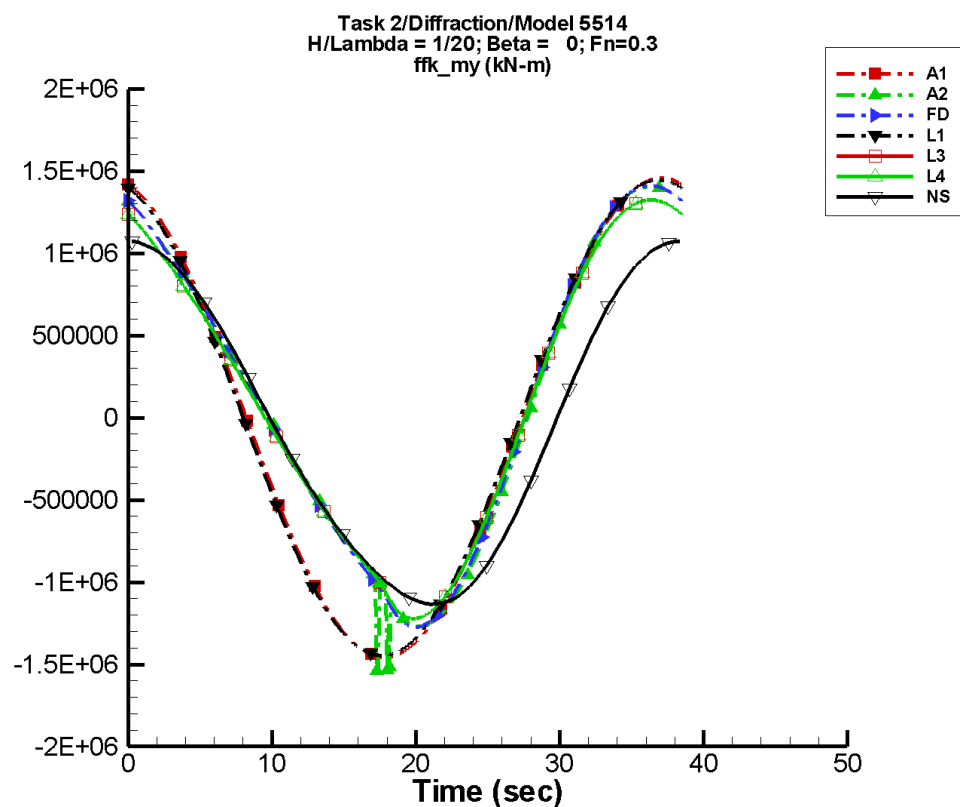
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	279.	4.87E+05	109	449.	-145
A2	1.19E+04	4.76E+05	106	2.19E+04	-137
FD	9.91E+03	4.72E+05	110	2.02E+04	-128
L1	854.	4.82E+05	108	619.	-55
L3	7.32E+03	4.69E+05	106	1.80E+04	-130
L4	7.32E+03	4.69E+05	106	1.80E+04	-130
NF	—	—	—	—	—
NS	673.	4.68E+05	100	1.66E+04	-169

Table H-1402. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.87E+05	4.87E+05	-4.87E+05	4.87E+05
A2	-4.74E+05	4.89E+05	-4.74E+05	4.88E+05
FD	-4.71E+05	4.82E+05	-4.70E+05	4.82E+05
L1	-4.82E+05	4.82E+05	-4.82E+05	4.82E+05
L3	-4.72E+05	4.76E+05	-4.72E+05	4.76E+05
L4	-4.72E+05	4.76E+05	-4.72E+05	4.76E+05
NF	—	—	—	—
NS	-4.69E+05	4.72E+05	-4.64E+05	4.67E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-702. Time history of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

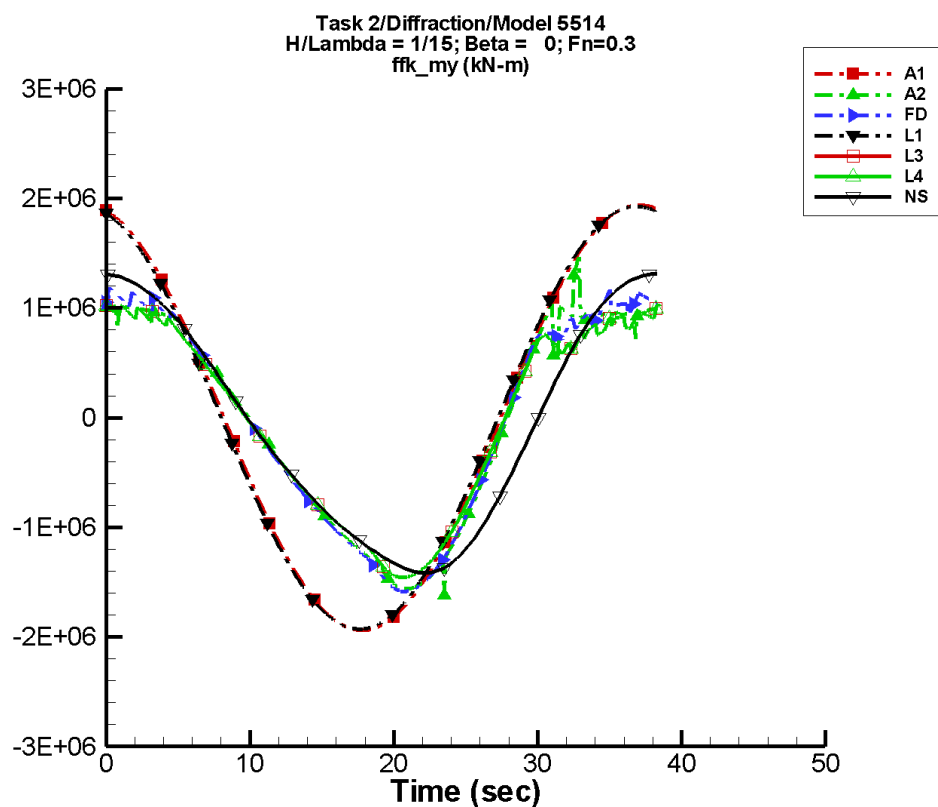
Table H-1403. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	835.	1.46E+06	109	1.34E+03	-145
A2	1.04E+05	1.27E+06	101	1.94E+05	-152
FD	1.13E+05	1.26E+06	104	1.85E+05	-147
L1	2.56E+03	1.45E+06	108	1.86E+03	-55
L3	9.72E+04	1.20E+06	100	1.69E+05	-153
L4	9.72E+04	1.20E+06	100	1.69E+05	-153
NF	—	—	—	—	—
NS	-4.13E+04	1.10E+06	84	8.49E+04	155

Table H-1404. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+06	1.46E+06	-1.46E+06	1.46E+06
A2	-1.54E+06	1.41E+06	-1.27E+06	1.41E+06
FD	-1.27E+06	1.41E+06	-1.27E+06	1.41E+06
L1	-1.45E+06	1.45E+06	-1.45E+06	1.45E+06
L3	-1.22E+06	1.32E+06	-1.22E+06	1.32E+06
L4	-1.22E+06	1.32E+06	-1.22E+06	1.32E+06
NF	—	—	—	—
NS	-1.13E+06	1.07E+06	-1.12E+06	1.07E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-703. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

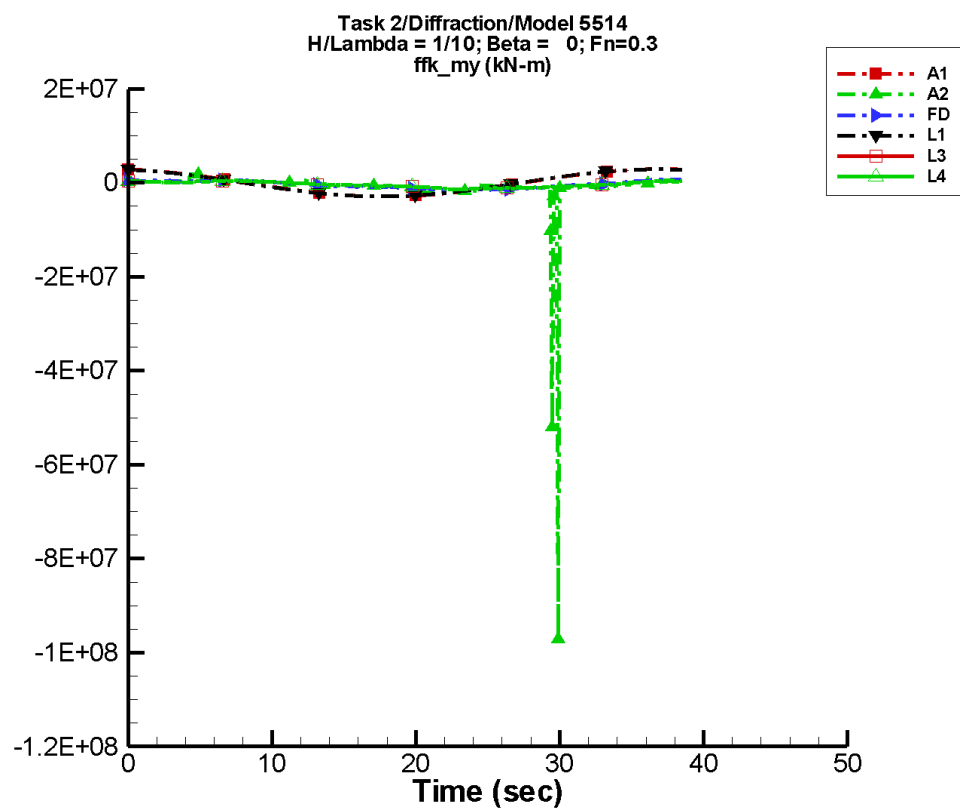
Table H-1405. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.11E+03	1.94E+06	109	1.79E+03	-145
A2	-1.13E+04	1.29E+06	96	2.43E+05	-111
FD	-8.13E+03	1.32E+06	99	2.14E+05	-109
L1	3.42E+03	1.93E+06	108	2.48E+03	-55
L3	-2.83E+04	1.17E+06	94	1.99E+05	-108
L4	-2.83E+04	1.17E+06	94	1.99E+05	-108
NF	—	—	—	—	—
NS	-6.29E+04	1.34E+06	83	1.57E+05	153

Table H-1406. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.94E+06	1.94E+06	-1.94E+06	1.94E+06
A2	-1.62E+06	1.46E+06	-1.56E+06	1.20E+06
FD	-1.59E+06	1.19E+06	-1.58E+06	1.15E+06
L1	-1.93E+06	1.93E+06	-1.93E+06	1.93E+06
L3	-1.46E+06	1.03E+06	-1.46E+06	1.02E+06
L4	-1.46E+06	1.03E+06	-1.46E+06	1.02E+06
NF	—	—	—	—
NS	-1.42E+06	1.31E+06	-1.41E+06	1.31E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-704. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

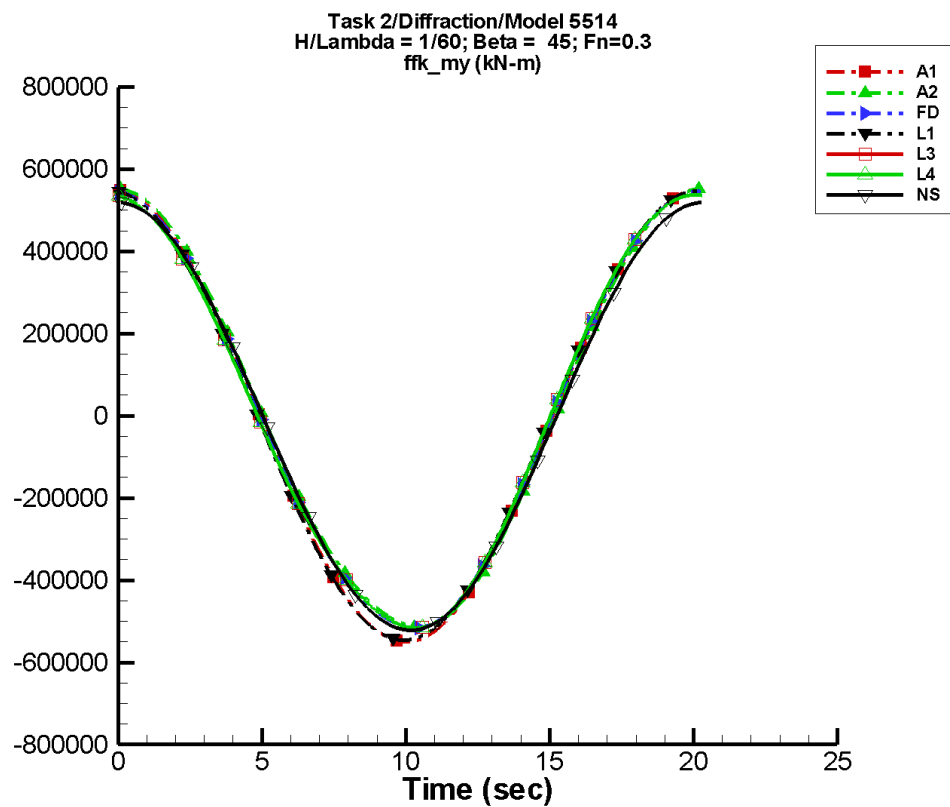
Table H-1407. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.67E+03	2.91E+06	109	2.68E+03	-145
A2	-8.96E+05	1.59E+06	25	6.37E+05	78
FD	-3.81E+05	1.02E+06	65	1.35E+05	-177
L1	5.13E+03	2.89E+06	108	3.72E+03	-55
L3	-3.52E+05	7.92E+05	51	1.08E+05	156
L4	-3.52E+05	7.92E+05	51	1.08E+05	156
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1408. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.91E+06	2.91E+06	-2.91E+06	2.91E+06
A2	-9.71E+07	1.83E+06	-1.88E+07	1.54E+06
FD	-1.74E+06	7.11E+05	-1.71E+06	6.80E+05
L1	-2.89E+06	2.89E+06	-2.89E+06	2.89E+06
L3	-1.41E+06	5.09E+05	-1.40E+06	4.86E+05
L4	-1.41E+06	5.09E+05	-1.40E+06	4.86E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-705. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1409. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

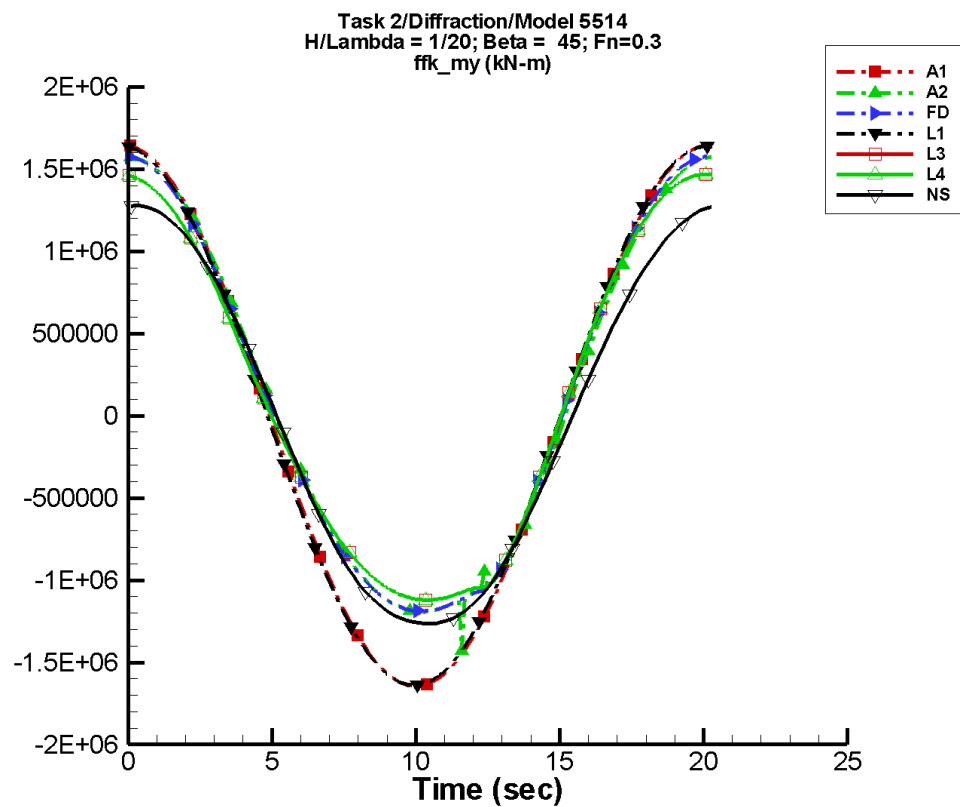
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-614.	5.50E+05	85	923.	-3
A2	1.12E+04	5.35E+05	82	1.18E+04	114
FD	8.57E+03	5.32E+05	81	1.07E+04	116
L1	-6.24	5.46E+05	91	69.4	-169
L3	7.11E+03	5.26E+05	90	1.50E+04	150
L4	7.11E+03	5.26E+05	90	1.50E+04	150
NF	—	—	—	—	—
NS	-2.72E+03	5.21E+05	90	1.12E+03	115

Table H-1410. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.50E+05	5.50E+05	-5.49E+05	5.49E+05
A2	-5.22E+05	5.52E+05	-5.14E+05	5.52E+05
FD	-5.17E+05	5.45E+05	-5.15E+05	5.44E+05
L1	-5.46E+05	5.46E+05	-5.48E+05	5.46E+05
L3	-5.17E+05	5.37E+05	-5.17E+05	5.37E+05
L4	-5.17E+05	5.37E+05	-5.17E+05	5.37E+05
NF	—	—	—	—
NS	-5.22E+05	5.19E+05	-5.17E+05	5.19E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-706. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

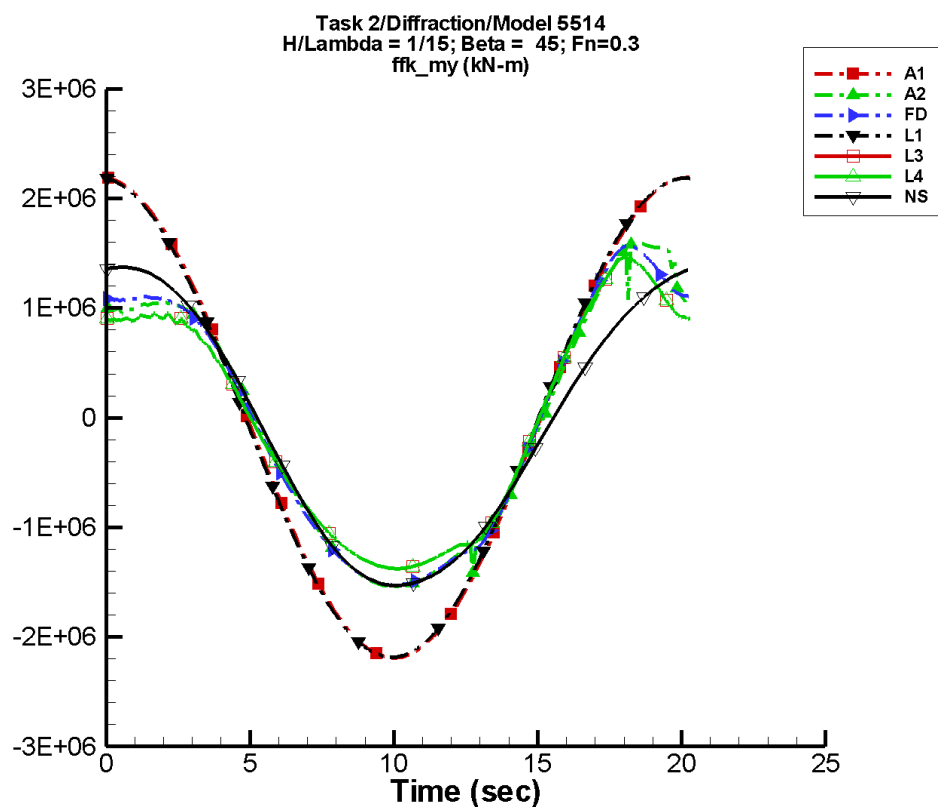
Table H-1411. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.84E+03	1.65E+06	85	2.76E+03	-3
A2	1.07E+05	1.41E+06	81	8.50E+04	96
FD	1.09E+05	1.42E+06	80	9.50E+04	99
L1	-18.6	1.64E+06	91	208.	-169
L3	9.61E+04	1.33E+06	88	1.05E+05	128
L4	9.61E+04	1.33E+06	88	1.05E+05	128
NF	—	—	—	—	—
NS	-1.58E+04	1.30E+06	86	1.75E+04	32

Table H-1412. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.65E+06	1.65E+06	-1.64E+06	1.64E+06
A2	-1.43E+06	1.57E+06	-1.19E+06	1.57E+06
FD	-1.19E+06	1.58E+06	-1.19E+06	1.57E+06
L1	-1.64E+06	1.64E+06	-1.64E+06	1.64E+06
L3	-1.12E+06	1.47E+06	-1.12E+06	1.47E+06
L4	-1.12E+06	1.47E+06	-1.12E+06	1.47E+06
NF	—	—	—	—
NS	-1.27E+06	1.28E+06	-1.26E+06	1.28E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-707. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

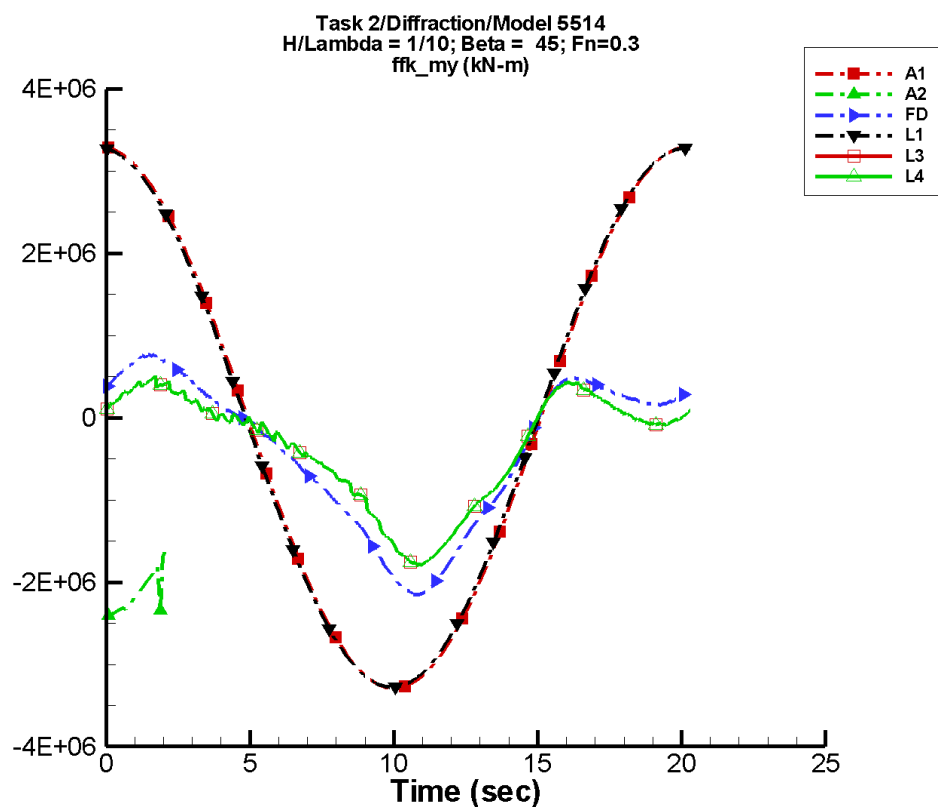
Table H-1413. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.45E+03	2.19E+06	85	3.68E+03	-3
A2	-2.07E+04	1.51E+06	88	1.70E+05	-149
FD	-2.18E+04	1.50E+06	82	1.79E+05	-152
L1	-24.9	2.18E+06	91	277.	-169
L3	-3.27E+04	1.34E+06	91	1.75E+05	-135
L4	-3.27E+04	1.34E+06	91	1.75E+05	-135
NF	—	—	—	—	—
NS	-5.82E+04	1.47E+06	85	6.41E+04	-38

Table H-1414. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.19E+06	2.19E+06	-2.19E+06	2.19E+06
A2	-1.54E+06	1.88E+06	-1.54E+06	1.58E+06
FD	-1.53E+06	1.57E+06	-1.52E+06	1.55E+06
L1	-2.18E+06	2.18E+06	-2.19E+06	2.18E+06
L3	-1.38E+06	1.46E+06	-1.38E+06	1.45E+06
L4	-1.38E+06	1.46E+06	-1.38E+06	1.45E+06
NF	—	—	—	—
NS	-1.53E+06	1.37E+06	-1.52E+06	1.37E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-708. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

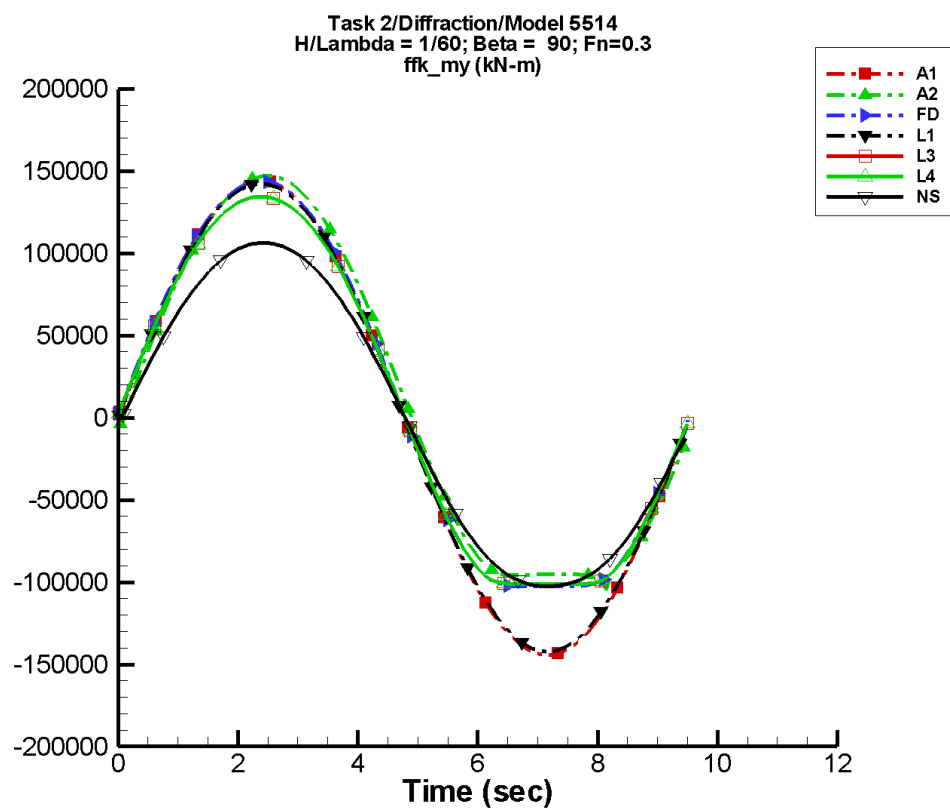
Table H-1415. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.68E+03	3.29E+06	85	5.52E+03	-3
A2	-1.85E+06	1.05E+06	102	1.46E+06	-96
FD	-3.56E+05	1.19E+06	73	3.69E+05	-120
L1	-37.6	3.27E+06	91	415.	-169
L3	-3.33E+05	8.25E+05	80	3.17E+05	-119
L4	-3.33E+05	8.25E+05	80	3.17E+05	-119
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1416. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.29E+06	3.29E+06	-3.28E+06	3.28E+06
A2	-2.42E+06	-9.37E+03	-2.37E+06	6.24E+03
FD	-2.15E+06	7.71E+05	-2.13E+06	7.42E+05
L1	-3.28E+06	3.28E+06	-3.29E+06	3.27E+06
L3	-1.79E+06	5.07E+05	-1.78E+06	4.38E+05
L4	-1.79E+06	5.07E+05	-1.78E+06	4.38E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-709. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1417. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

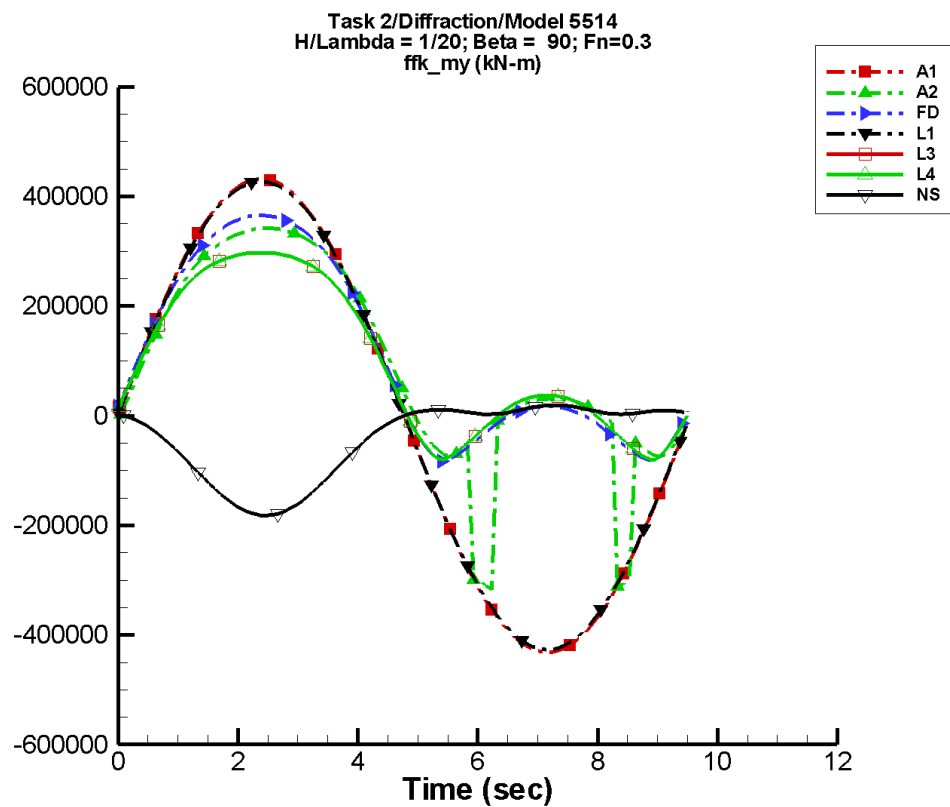
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-105.	1.44E+05	-5	164.	-28
A2	1.18E+04	1.29E+05	-9	1.14E+04	-104
FD	9.30E+03	1.30E+05	-6	8.09E+03	-101
L1	62.5	1.42E+05	-4	112.	29
L3	7.30E+03	1.24E+05	-3	7.20E+03	-105
L4	7.30E+03	1.24E+05	-3	7.20E+03	-105
NF	—	—	—	—	—
NS	-432.	1.07E+05	-2	1.46E+03	-86

Table H-1418. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.44E+05	1.44E+05	-1.43E+05	1.43E+05
A2	-1.05E+05	1.47E+05	-9.63E+04	1.45E+05
FD	-1.03E+05	1.44E+05	-1.03E+05	1.42E+05
L1	-1.42E+05	1.42E+05	-1.42E+05	1.42E+05
L3	-1.01E+05	1.35E+05	-1.01E+05	1.34E+05
L4	-1.01E+05	1.35E+05	-1.01E+05	1.34E+05
NF	—	—	—	—
NS	-1.03E+05	1.06E+05	-1.02E+05	1.06E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-710. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

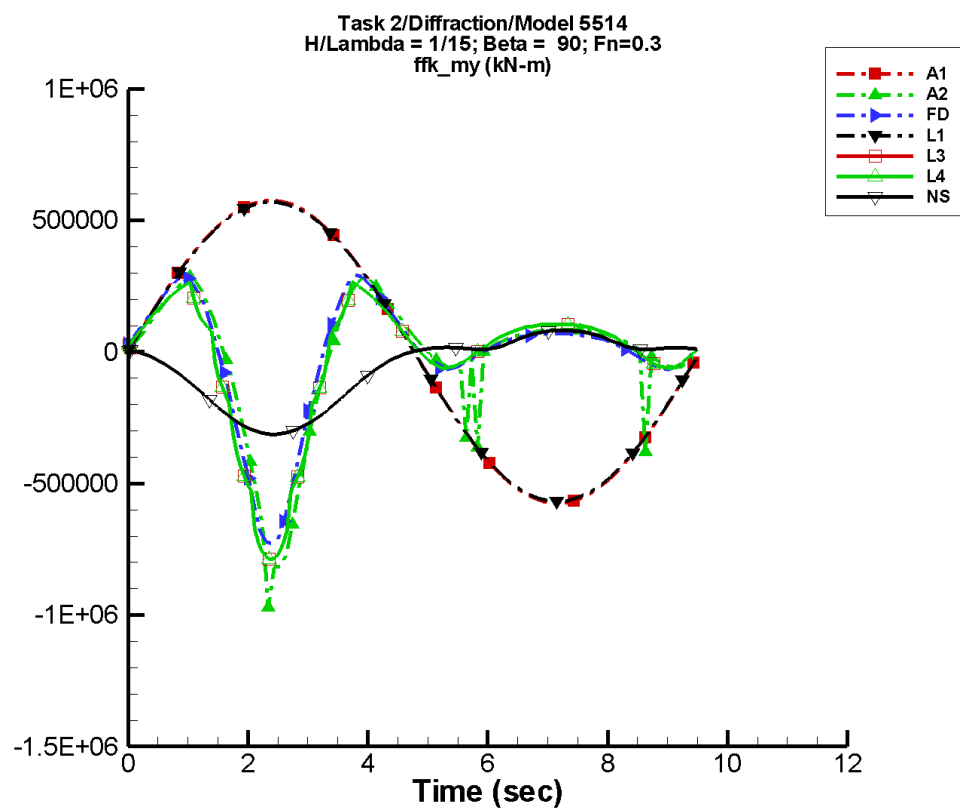
Table H-1419. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-314.	4.32E+05	-5	490.	-28
A2	9.21E+04	2.18E+05	-6	8.10E+04	-108
FD	1.12E+05	2.05E+05	-5	7.97E+04	-101
L1	187.	4.27E+05	-4	337.	29
L3	9.90E+04	1.63E+05	-1	7.57E+04	-101
L4	9.90E+04	1.63E+05	-1	7.57E+04	-101
NF	—	—	—	—	—
NS	-4.23E+04	8.53E+04	176	4.44E+04	83

Table H-1420. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.32E+05	4.31E+05	-4.27E+05	4.27E+05
A2	-3.17E+05	3.42E+05	-1.75E+05	3.39E+05
FD	-8.27E+04	3.66E+05	-7.03E+04	3.63E+05
L1	-4.27E+05	4.27E+05	-4.25E+05	4.25E+05
L3	-8.00E+04	2.98E+05	-7.42E+04	2.97E+05
L4	-8.00E+04	2.98E+05	-7.42E+04	2.97E+05
NF	—	—	—	—
NS	-1.82E+05	1.89E+04	-1.79E+05	1.75E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-711. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

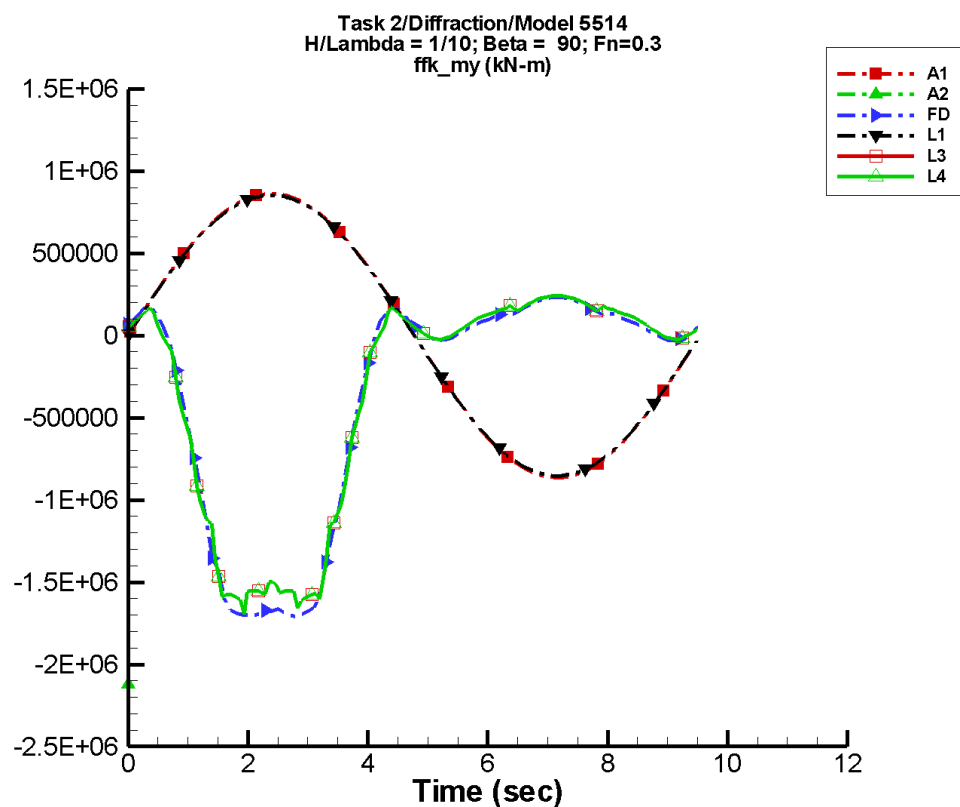
Table H-1421. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-418.	5.75E+05	-5	652.	-28
A2	-1.33E+04	9.98E+04	156	1.57E+05	61
FD	1.05E+03	1.04E+05	177	2.17E+05	79
L1	250.	5.69E+05	-4	449.	29
L3	-1.45E+04	1.73E+05	168	1.76E+05	90
L4	-1.45E+04	1.73E+05	168	1.76E+05	90
NF	—	—	—	—	—
NS	-6.18E+04	1.63E+05	176	6.50E+04	84

Table H-1422. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.75E+05	5.74E+05	-5.68E+05	5.68E+05
A2	-9.71E+05	2.87E+05	-7.06E+05	2.39E+05
FD	-7.31E+05	2.95E+05	-6.33E+05	2.50E+05
L1	-5.69E+05	5.69E+05	-5.67E+05	5.67E+05
L3	-7.87E+05	2.67E+05	-7.54E+05	2.30E+05
L4	-7.87E+05	2.67E+05	-7.54E+05	2.30E+05
NF	—	—	—	—
NS	-3.13E+05	8.15E+04	-3.10E+05	8.03E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-712. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

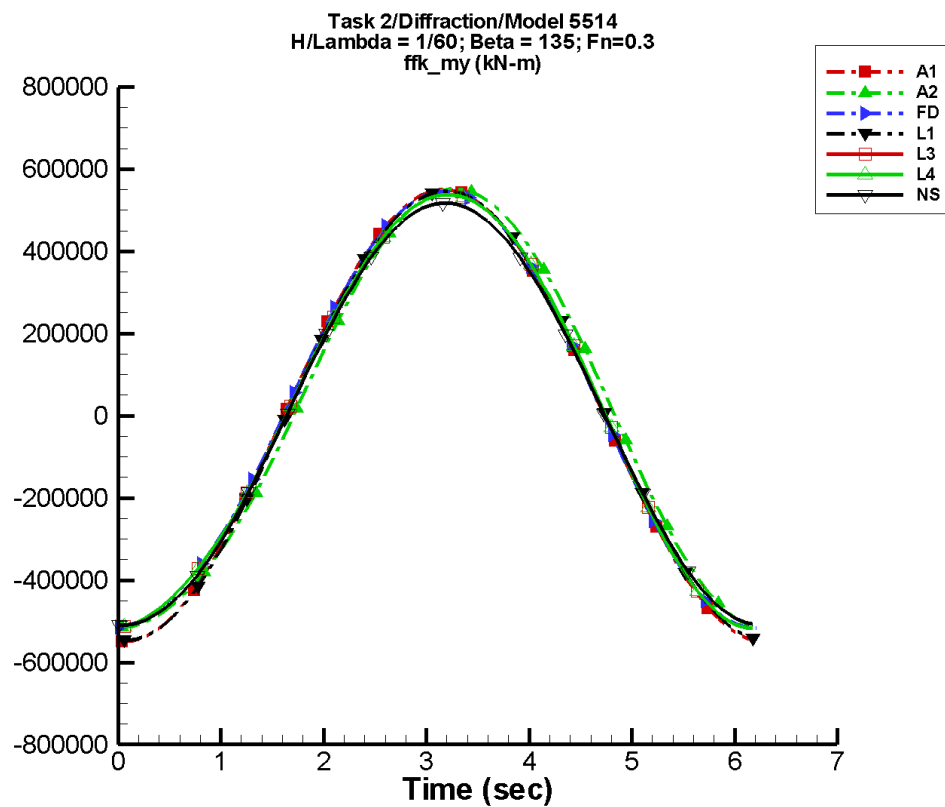
Table H-1423. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-627.	8.63E+05	-5	980.	-28
A2	-2.45E+06	1.28E+07	82	6.86E+06	167
FD	-3.55E+05	8.42E+05	174	5.41E+05	78
L1	375.	8.54E+05	-4	674.	29
L3	-3.34E+05	8.40E+05	174	4.49E+05	87
L4	-3.34E+05	8.40E+05	174	4.49E+05	87
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1424. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.63E+05	8.63E+05	-8.54E+05	8.53E+05
A2	-2.14E+06	-2.12E+06	-2.14E+06	-2.12E+06
FD	-1.71E+06	2.34E+05	-1.70E+06	2.19E+05
L1	-8.53E+05	8.53E+05	-8.50E+05	8.50E+05
L3	-1.69E+06	2.42E+05	-1.60E+06	2.39E+05
L4	-1.69E+06	2.42E+05	-1.60E+06	2.39E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-713. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1425. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

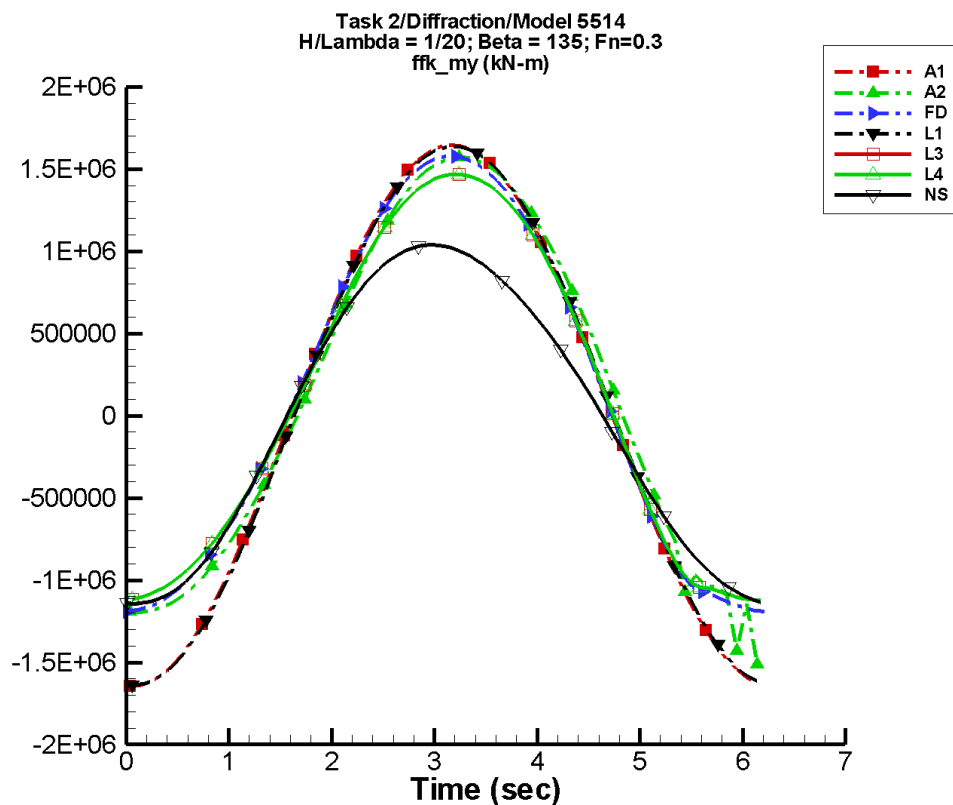
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	799.	5.50E+05	-100	1.07E+03	-157
A2	1.29E+04	5.33E+05	-105	1.25E+04	14
FD	9.65E+03	5.31E+05	-115	1.08E+04	-5
L1	627.	5.46E+05	-104	726.	-144
L3	7.77E+03	5.26E+05	-104	1.51E+04	-4
L4	7.77E+03	5.26E+05	-104	1.51E+04	-4
NF	—	—	—	—	—
NS	535.	5.15E+05	-95	4.26E+03	58

Table H-1426. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.50E+05	5.50E+05	-5.48E+05	5.36E+05
A2	-5.15E+05	5.52E+05	-5.12E+05	5.38E+05
FD	-5.16E+05	5.45E+05	-5.12E+05	5.31E+05
L1	-5.46E+05	5.46E+05	-5.46E+05	5.41E+05
L3	-5.17E+05	5.37E+05	-5.11E+05	5.32E+05
L4	-5.17E+05	5.37E+05	-5.11E+05	5.32E+05
NF	—	—	—	—
NS	-5.09E+05	5.17E+05	-5.11E+05	5.12E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-714. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

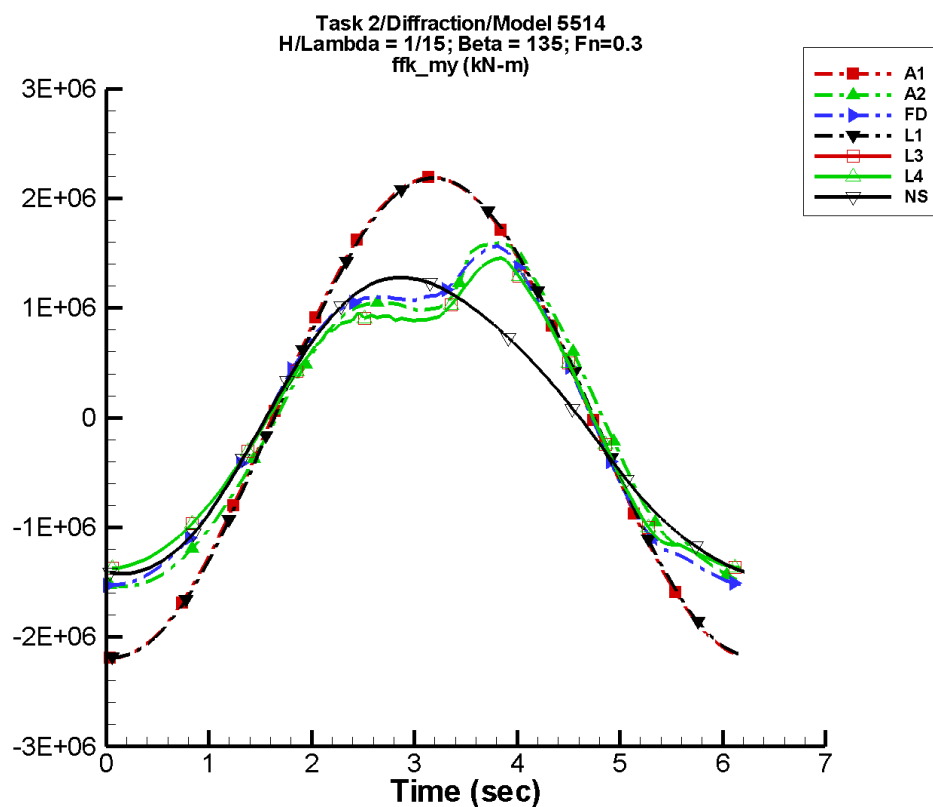
Table H-1427. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.39E+03	1.65E+06	-100	3.20E+03	-157
A2	1.00E+05	1.43E+06	-104	8.89E+04	24
FD	1.13E+05	1.41E+06	-113	8.95E+04	13
L1	1.88E+03	1.64E+06	-104	2.18E+03	-144
L3	9.73E+04	1.33E+06	-102	1.07E+05	22
L4	9.73E+04	1.33E+06	-102	1.07E+05	22
NF	—	—	—	—	—
NS	-4.26E+04	1.10E+06	-90	5.79E+04	-167

Table H-1428. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.65E+06	1.64E+06	-1.64E+06	1.60E+06
A2	-1.51E+06	1.57E+06	-1.24E+06	1.53E+06
FD	-1.19E+06	1.58E+06	-1.19E+06	1.54E+06
L1	-1.64E+06	1.64E+06	-1.64E+06	1.62E+06
L3	-1.12E+06	1.47E+06	-1.11E+06	1.46E+06
L4	-1.12E+06	1.47E+06	-1.11E+06	1.46E+06
NF	—	—	—	—
NS	-1.14E+06	1.04E+06	-1.15E+06	1.03E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-715. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

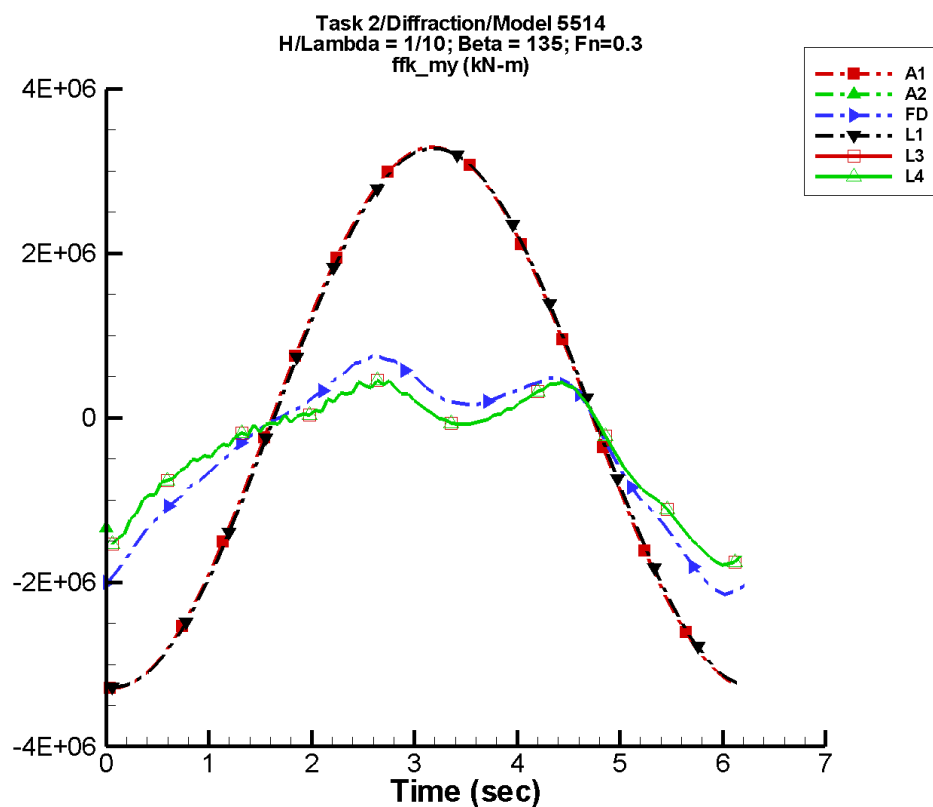
Table H-1429. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.18E+03	2.19E+06	-100	4.26E+03	-157
A2	-1.83E+04	1.50E+06	-108	1.55E+05	-75
FD	-8.64E+03	1.51E+06	-116	1.88E+05	-98
L1	2.51E+03	2.18E+06	-104	2.91E+03	-144
L3	-2.97E+04	1.35E+06	-105	1.83E+05	-63
L4	-2.97E+04	1.35E+06	-105	1.83E+05	-63
NF	—	—	—	—	—
NS	-6.49E+04	1.35E+06	-89	1.24E+05	-173

Table H-1430. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.19E+06	2.19E+06	-2.18E+06	2.13E+06
A2	-1.54E+06	1.59E+06	-1.54E+06	1.45E+06
FD	-1.53E+06	1.57E+06	-1.53E+06	1.41E+06
L1	-2.18E+06	2.18E+06	-2.18E+06	2.16E+06
L3	-1.38E+06	1.46E+06	-1.37E+06	1.39E+06
L4	-1.38E+06	1.46E+06	-1.37E+06	1.39E+06
NF	—	—	—	—
NS	-1.42E+06	1.28E+06	-1.43E+06	1.27E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-716. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

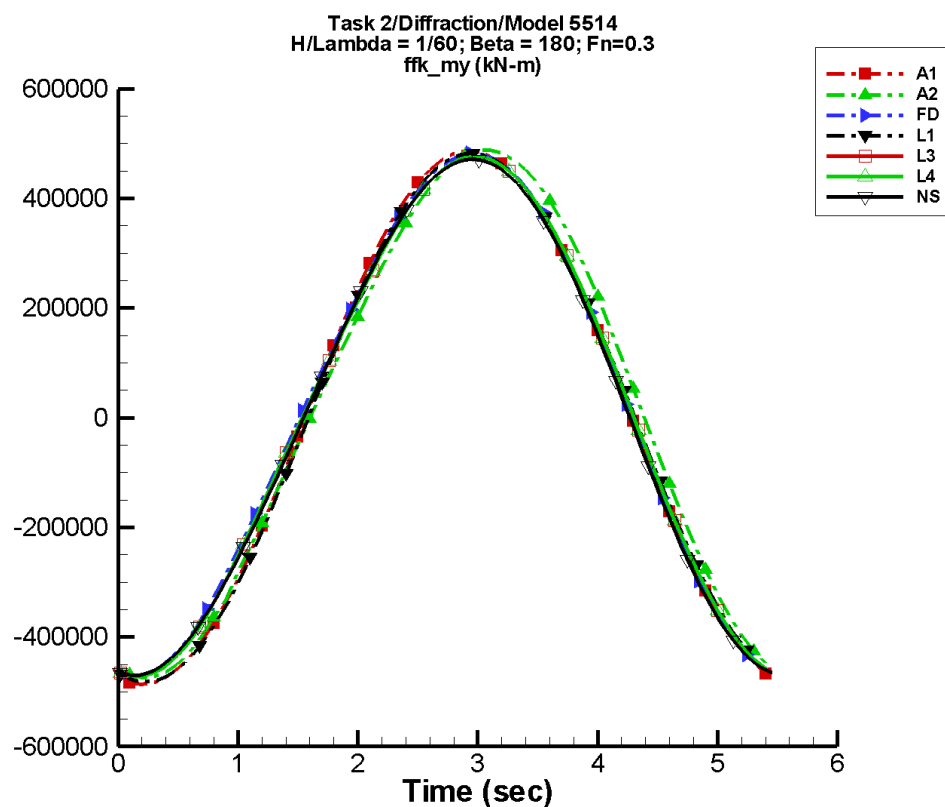
Table H-1431. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.78E+03	3.29E+06	-100	6.39E+03	-157
A2	-9.29E+05	9.59E+05	14	1.35E+06	-100
FD	-3.61E+05	1.13E+06	-108	3.70E+05	-126
L1	3.76E+03	3.28E+06	-104	4.36E+03	-144
L3	-3.39E+05	7.98E+05	-93	3.75E+05	-89
L4	-3.39E+05	7.98E+05	-93	3.75E+05	-89
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1432. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.29E+06	3.29E+06	-3.28E+06	3.21E+06
A2	-1.34E+06	-1.15E+06	-1.34E+06	-1.15E+06
FD	-2.15E+06	7.64E+05	-1.96E+06	6.36E+05
L1	-3.28E+06	3.28E+06	-3.27E+06	3.25E+06
L3	-1.79E+06	4.54E+05	-1.71E+06	3.95E+05
L4	-1.79E+06	4.54E+05	-1.71E+06	3.95E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-717. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1433. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

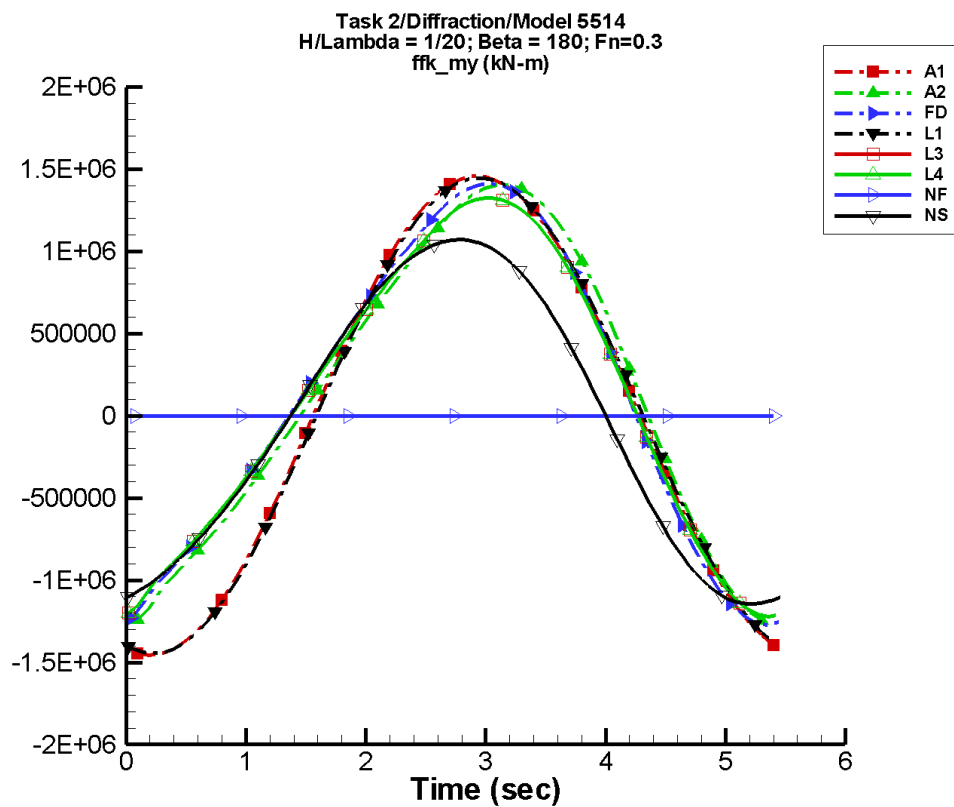
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-864.	4.87E+05	-96	993.	57
A2	1.04E+04	4.77E+05	-101	2.07E+04	-35
FD	7.35E+03	4.72E+05	-10	1.98E+04	155
L1	-664.	4.82E+05	-82	1.11E+03	169
L3	5.49E+03	4.69E+05	-80	1.74E+04	6
L4	5.49E+03	4.69E+05	-80	1.74E+04	6
NF	—	—	—	—	—
NS	-570.	4.68E+05	-100	1.74E+04	-17

Table H-1434. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.87E+05	4.87E+05	-4.84E+05	4.70E+05
A2	-4.74E+05	4.88E+05	-4.71E+05	4.72E+05
FD	-4.71E+05	4.82E+05	-4.66E+05	4.66E+05
L1	-4.82E+05	4.82E+05	-4.77E+05	4.76E+05
L3	-4.72E+05	4.76E+05	-4.71E+05	4.70E+05
L4	-4.72E+05	4.76E+05	-4.71E+05	4.70E+05
NF	—	—	—	—
NS	-4.70E+05	4.72E+05	-4.70E+05	4.67E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-718. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

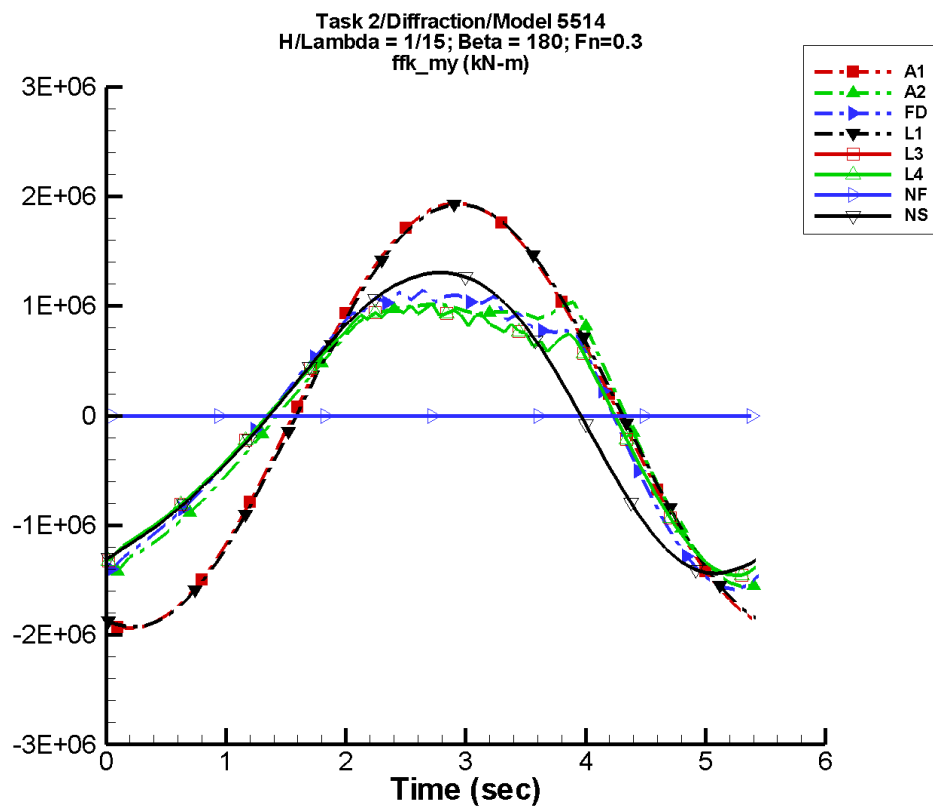
Table H-1435. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.58E+03	1.46E+06	-96	2.97E+03	57
A2	1.09E+05	1.25E+06	-96	2.00E+05	-14
FD	1.05E+05	1.26E+06	-4	1.85E+05	169
L1	-1.99E+03	1.45E+06	-82	3.34E+03	169
L3	9.38E+04	1.19E+06	-74	1.66E+05	28
L4	9.38E+04	1.19E+06	-74	1.66E+05	28
NF	—	—	—	—	—
NS	-4.48E+04	1.10E+06	-85	9.03E+04	23

Table H-1436. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+06	1.46E+06	-1.45E+06	1.41E+06
A2	-1.27E+06	1.40E+06	-1.18E+06	1.35E+06
FD	-1.27E+06	1.41E+06	-1.22E+06	1.36E+06
L1	-1.45E+06	1.45E+06	-1.43E+06	1.43E+06
L3	-1.22E+06	1.32E+06	-1.19E+06	1.31E+06
L4	-1.22E+06	1.32E+06	-1.19E+06	1.31E+06
NF	—	—	—	—
NS	-1.15E+06	1.07E+06	-1.13E+06	1.06E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-719. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

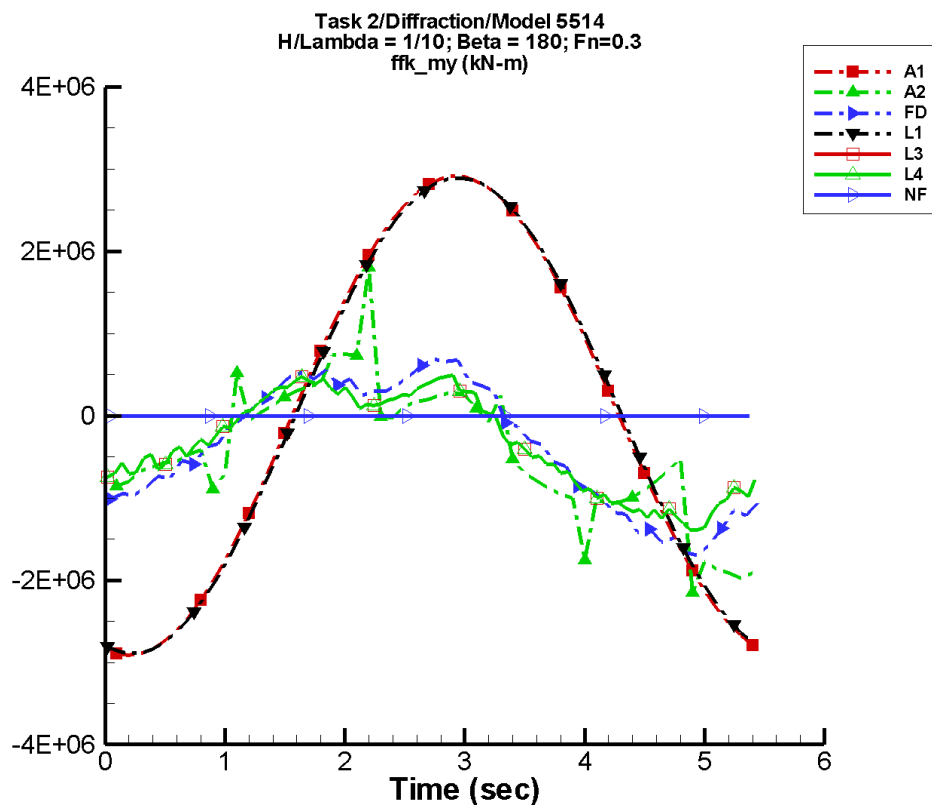
Table H-1437. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.44E+03	1.94E+06	-96	3.95E+03	57
A2	-8.87E+03	1.26E+06	-91	2.48E+05	-54
FD	-2.19E+04	1.31E+06	1	2.15E+05	128
L1	-2.66E+03	1.93E+06	-82	4.46E+03	169
L3	-1.99E+04	1.15E+06	-69	1.79E+05	-25
L4	-1.99E+04	1.15E+06	-69	1.79E+05	-25
NF	—	—	—	—	—
NS	-6.74E+04	1.34E+06	-82	1.66E+05	28

Table H-1438. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.94E+06	1.94E+06	-1.93E+06	1.87E+06
A2	-1.56E+06	1.04E+06	-1.44E+06	9.89E+05
FD	-1.58E+06	1.16E+06	-1.55E+06	1.09E+06
L1	-1.93E+06	1.93E+06	-1.91E+06	1.90E+06
L3	-1.46E+06	1.03E+06	-1.41E+06	9.63E+05
L4	-1.46E+06	1.03E+06	-1.41E+06	9.63E+05
NF	—	—	—	—
NS	-1.44E+06	1.30E+06	-1.43E+06	1.30E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-720. Time history of  $M_y^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

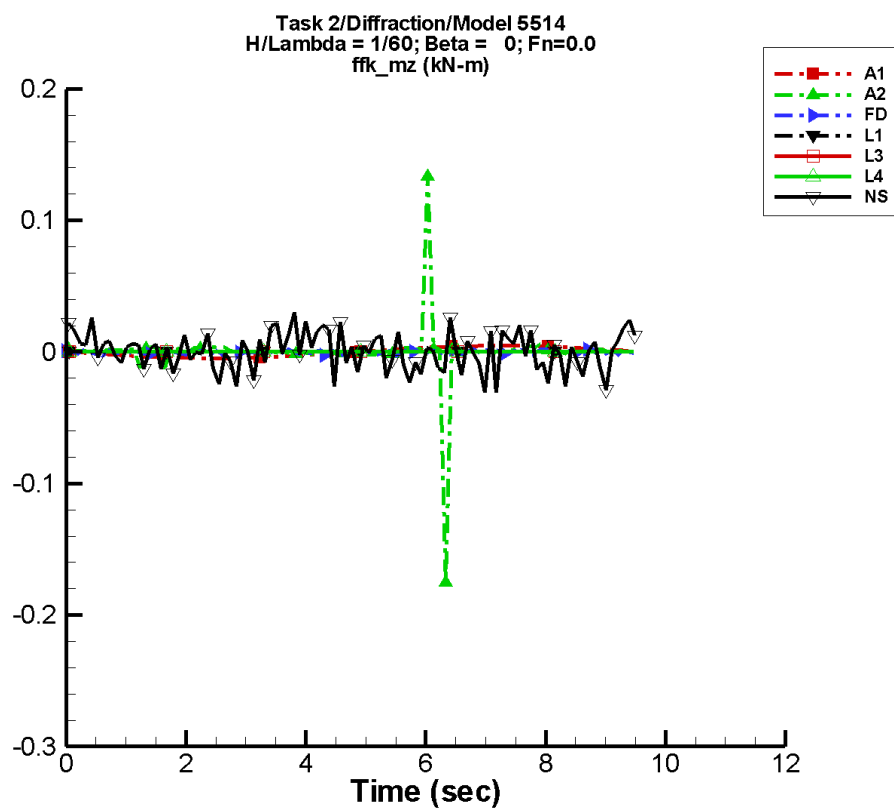
Table H-1439. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-5.17E+03	2.91E+06	-96	5.94E+03	57
A2	-4.53E+05	9.82E+05	-44	5.20E+04	-136
FD	-3.80E+05	1.03E+06	35	1.44E+05	-157
L1	-3.99E+03	2.89E+06	-82	6.69E+03	169
L3	-3.57E+05	7.98E+05	-25	1.06E+05	77
L4	-3.57E+05	7.98E+05	-25	1.06E+05	77
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1440. Minimum and maximum of  $M_y^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.91E+06	2.91E+06	-2.90E+06	2.81E+06
A2	-2.15E+06	1.81E+06	-1.67E+06	6.01E+05
FD	-1.74E+06	6.87E+05	-1.50E+06	5.39E+05
L1	-2.89E+06	2.89E+06	-2.86E+06	2.86E+06
L3	-1.39E+06	4.95E+05	-1.27E+06	4.05E+05
L4	-1.39E+06	4.95E+05	-1.27E+06	4.05E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-721. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1441. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

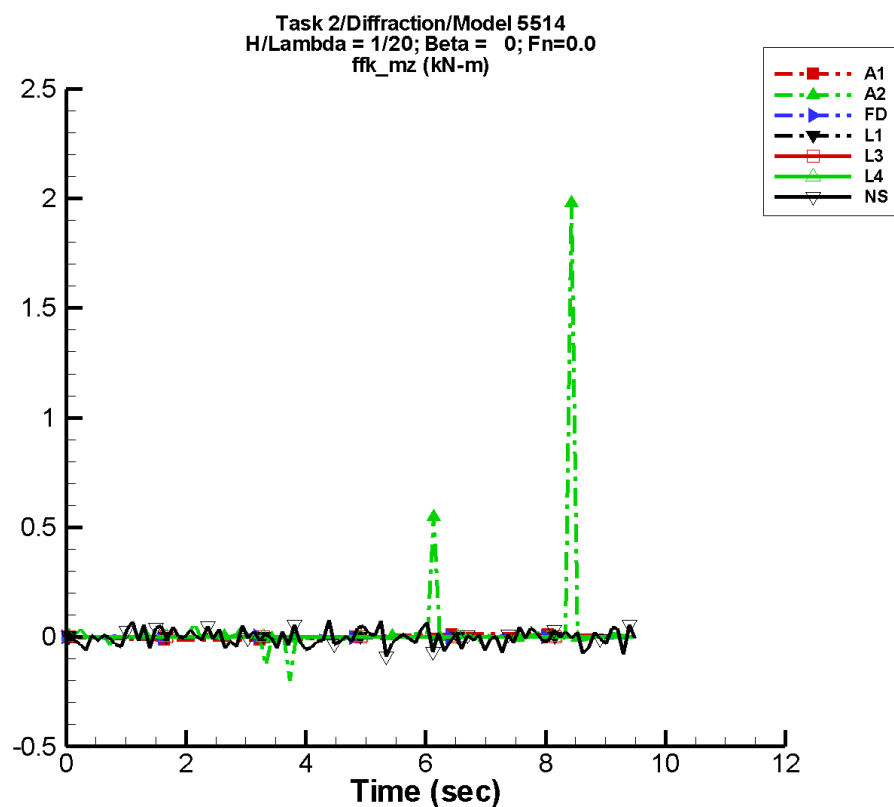
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.17E-06	4.69E-03	172	5.15E-06	149
A2	4.05E-05	1.03E-03	45	6.84E-04	135
FD	-2.92E-04	4.96E-04	174	2.97E-04	173
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.43E-04	2.75E-03	-11	3.59E-03	112

Table H-1442. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.69E-03	4.69E-03	-4.64E-03	4.64E-03
A2	-0.175	0.133	-1.36E-02	1.02E-02
FD	-4.14E-03	2.91E-03	-1.16E-03	5.83E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.08E-02	3.00E-02	-9.64E-03	1.74E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-722. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

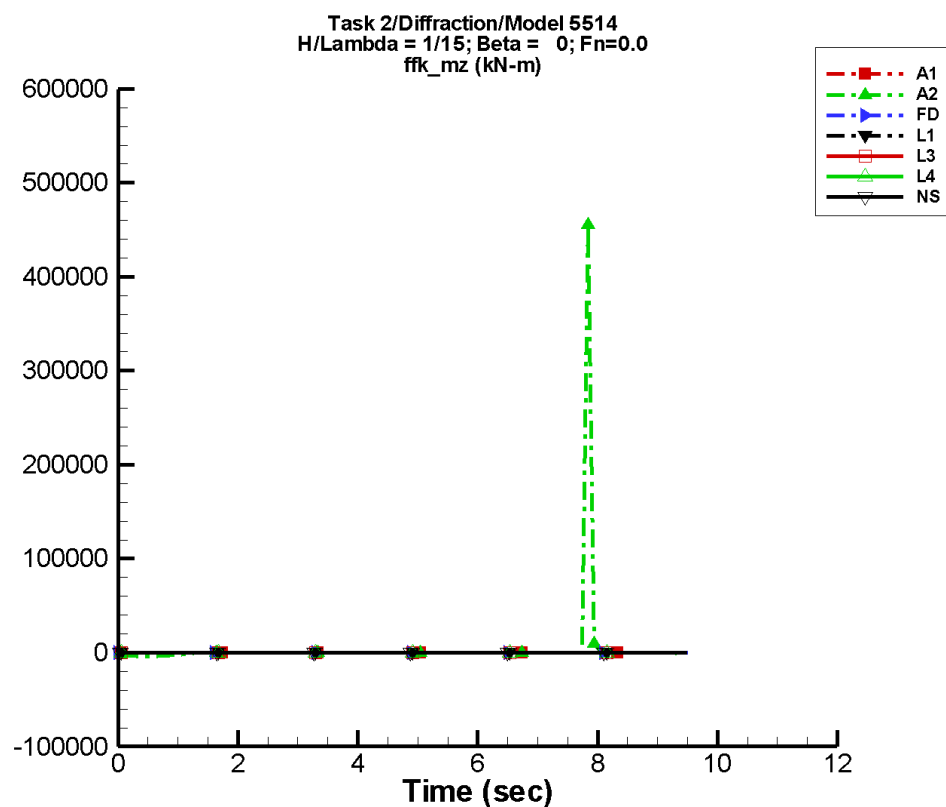
Table H-1443. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	9.49E-06	1.40E-02	172	1.54E-05	149
A2	2.55E-02	4.87E-02	140	2.42E-02	-179
FD	-3.85E-04	8.22E-04	119	8.89E-04	-152
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.52E-03	6.23E-03	3	4.24E-03	-45

Table H-1444. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40E-02	1.40E-02	-1.39E-02	1.39E-02
A2	-0.199	1.98	-3.79E-02	0.270
FD	-5.86E-03	6.09E-03	-3.10E-03	1.54E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.99E-02	7.60E-02	-1.99E-02	1.86E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-723. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

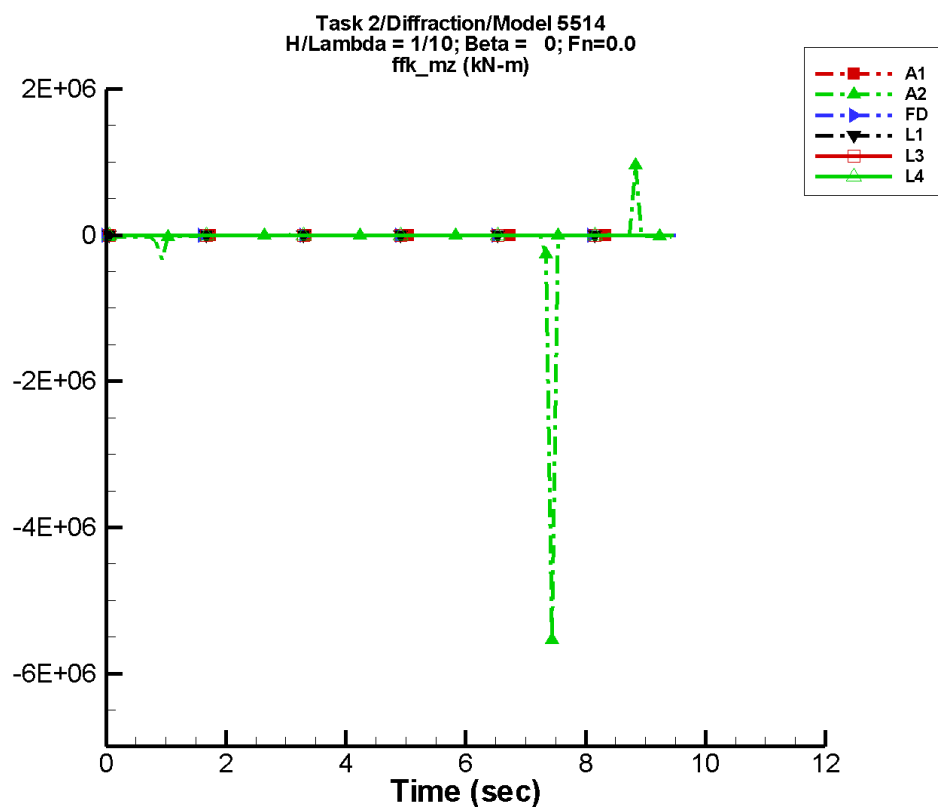
Table H-1445. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.26E-05	1.87E-02	172	2.05E-05	149
A2	4.79E+03	9.24E+03	151	1.01E+04	-146
FD	-2.98E-04	9.93E-04	90	3.73E-04	166
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.23E-03	6.99E-03	66	6.20E-03	-81

Table H-1446. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E-02	1.87E-02	-1.85E-02	1.85E-02
A2	-3.95E+03	4.55E+05	-5.29E+03	6.19E+04
FD	-5.93E-03	4.57E-03	-2.05E-03	1.93E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.195	0.155	-3.28E-02	1.93E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-724. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

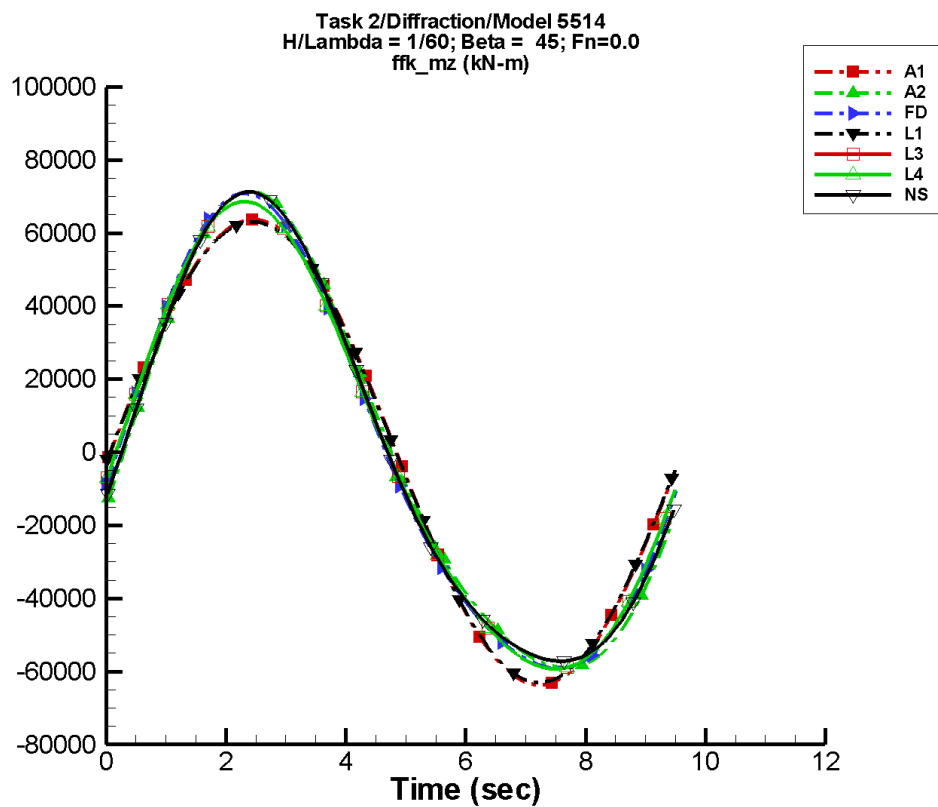
Table H-1447. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.90E-05	2.81E-02	172	3.08E-05	149
A2	-7.06E+04	9.77E+04	-27	1.12E+05	83
FD	-2.90E-04	5.27E-04	127	7.60E-04	120
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1448. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.81E-02	2.81E-02	-2.78E-02	2.78E-02
A2	-5.54E+06	9.51E+05	-7.70E+05	1.20E+05
FD	-6.79E-03	7.56E-03	-2.16E-03	2.57E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-725. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1449. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

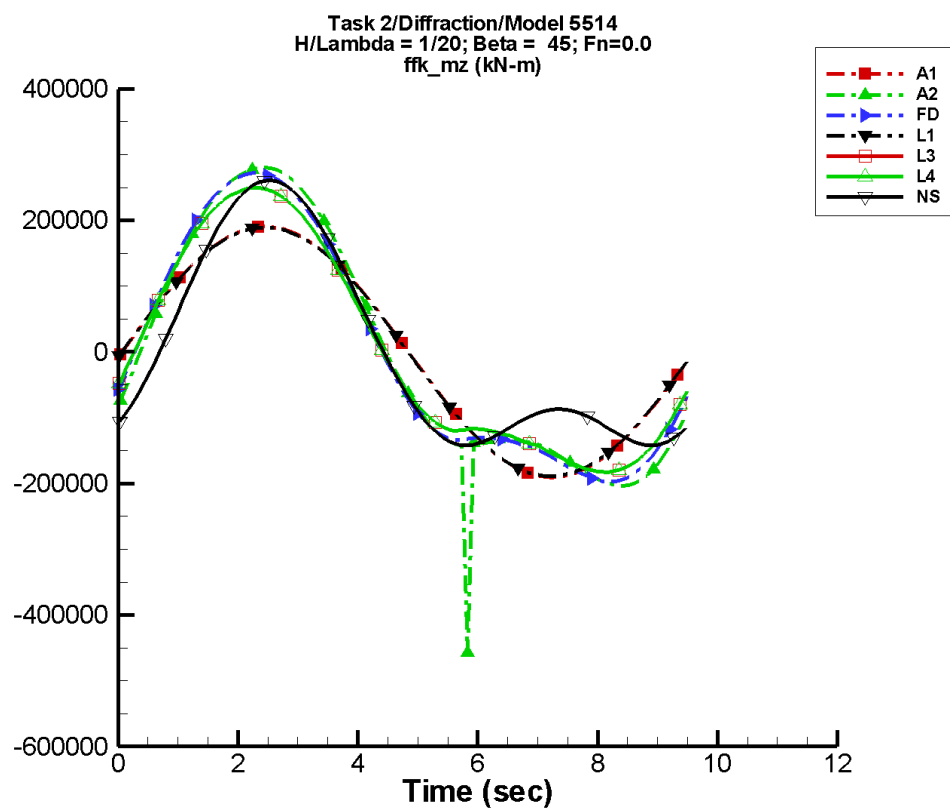
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-43.3	6.37E+04	-8	70.1	-31
A2	-70.4	6.47E+04	-11	7.98E+03	-78
FD	29.7	6.47E+04	-8	7.35E+03	-72
L1	-22.2	6.30E+04	-6	40.9	-32
L3	-14.5	6.36E+04	-6	6.34E+03	-63
L4	-14.5	6.36E+04	-6	6.34E+03	-63
NF	—	—	—	—	—
NS	4.34	6.41E+04	-5	8.01E+03	-74

Table H-1450. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.37E+04	6.37E+04	-6.30E+04	6.30E+04
A2	-5.90E+04	7.13E+04	-5.85E+04	7.04E+04
FD	-5.92E+04	7.09E+04	-5.87E+04	6.99E+04
L1	-6.30E+04	6.30E+04	-6.28E+04	6.28E+04
L3	-5.93E+04	6.86E+04	-5.91E+04	6.83E+04
L4	-5.93E+04	6.86E+04	-5.91E+04	6.83E+04
NF	—	—	—	—
NS	-5.72E+04	7.12E+04	-5.68E+04	7.12E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-726. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

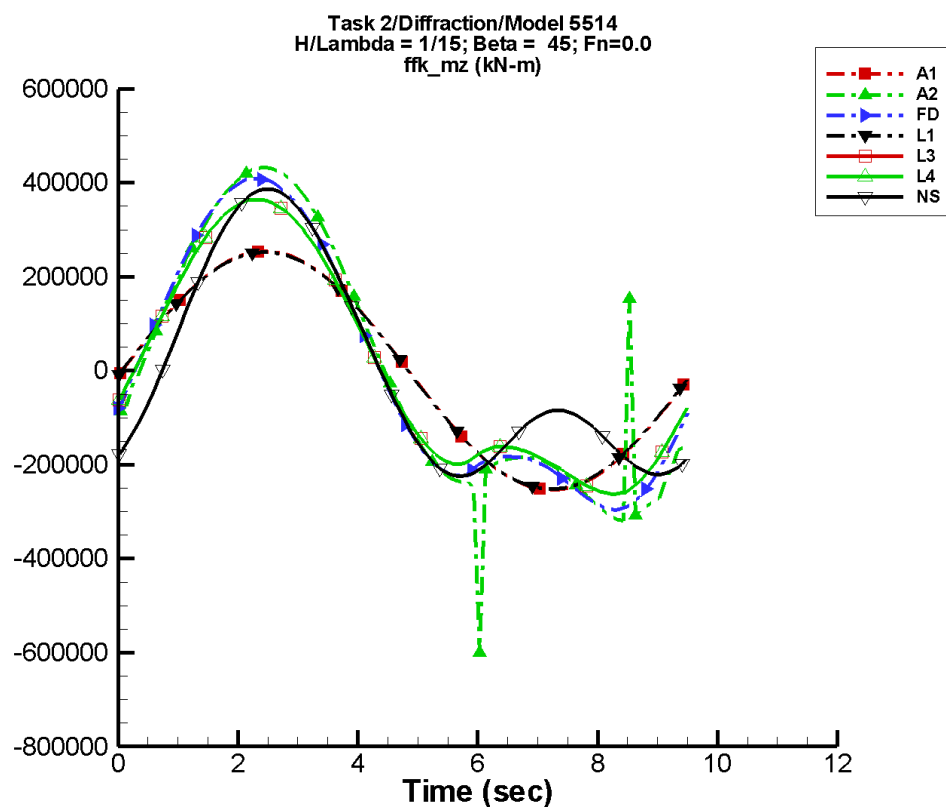
Table H-1451. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-130.	1.90E+05	-8	210.	-31
A2	-2.52E+03	2.34E+05	-8	6.73E+04	-92
FD	928.	2.24E+05	-7	6.02E+04	-80
L1	-66.6	1.89E+05	-6	123.	-32
L3	377.	2.07E+05	-5	5.48E+04	-74
L4	377.	2.07E+05	-5	5.48E+04	-74
NF	—	—	—	—	—
NS	-13.9	1.81E+05	-7	8.59E+04	-102

Table H-1452. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.90E+05	1.90E+05	-1.88E+05	1.88E+05
A2	-4.57E+05	2.80E+05	-2.00E+05	2.76E+05
FD	-1.97E+05	2.73E+05	-1.94E+05	2.68E+05
L1	-1.89E+05	1.89E+05	-1.88E+05	1.88E+05
L3	-1.83E+05	2.50E+05	-1.82E+05	2.48E+05
L4	-1.83E+05	2.50E+05	-1.82E+05	2.48E+05
NF	—	—	—	—
NS	-1.42E+05	2.61E+05	-1.39E+05	2.56E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-727. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

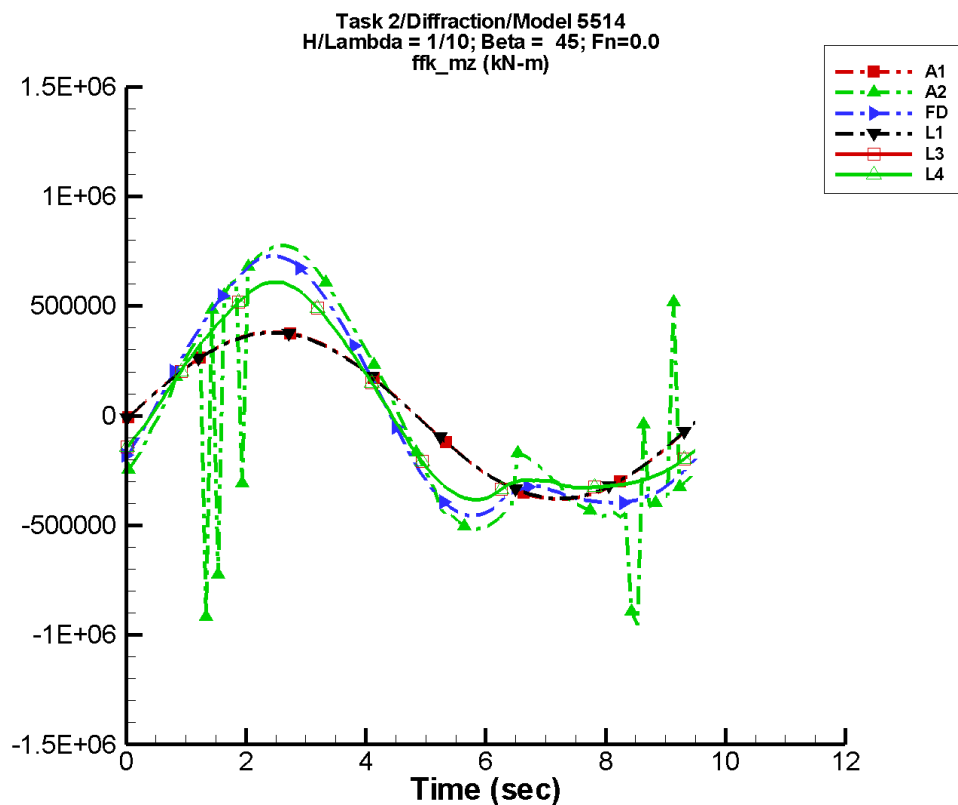
Table H-1453. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-173.	2.54E+05	-8	279.	-31
A2	260.	3.40E+05	-6	1.05E+05	-100
FD	1.59E+03	3.28E+05	-6	9.76E+04	-85
L1	-88.7	2.52E+05	-6	164.	-32
L3	577.	2.93E+05	-4	8.63E+04	-80
L4	577.	2.93E+05	-4	8.63E+04	-80
NF	—	—	—	—	—
NS	152.	2.54E+05	-6	1.47E+05	-102

Table H-1454. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.54E+05	2.54E+05	-2.51E+05	2.51E+05
A2	-6.00E+05	4.32E+05	-2.73E+05	4.25E+05
FD	-2.96E+05	4.09E+05	-2.88E+05	4.03E+05
L1	-2.52E+05	2.52E+05	-2.51E+05	2.51E+05
L3	-2.63E+05	3.64E+05	-2.60E+05	3.63E+05
L4	-2.63E+05	3.64E+05	-2.60E+05	3.63E+05
NF	—	—	—	—
NS	-2.25E+05	3.87E+05	-2.21E+05	3.82E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-728. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

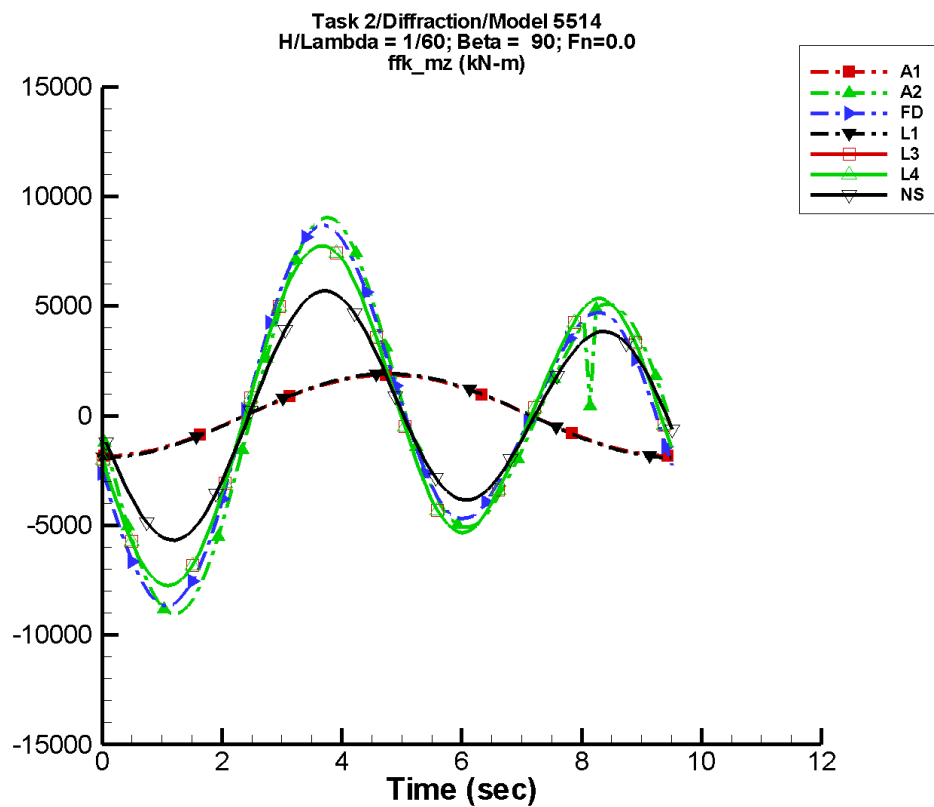
Table H-1455. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-259.	3.81E+05	-8	420.	-31
A2	-3.30E+04	5.28E+05	-7	1.97E+05	-131
FD	1.66E+03	5.55E+05	-6	1.82E+05	-108
L1	-133.	3.78E+05	-6	245.	-32
L3	345.	4.64E+05	-4	1.47E+05	-108
L4	345.	4.64E+05	-4	1.47E+05	-108
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1456. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.81E+05	3.81E+05	-3.77E+05	3.77E+05
A2	-9.54E+05	7.77E+05	-5.30E+05	7.65E+05
FD	-4.56E+05	7.28E+05	-4.40E+05	7.13E+05
L1	-3.78E+05	3.78E+05	-3.77E+05	3.77E+05
L3	-3.84E+05	6.09E+05	-3.80E+05	6.05E+05
L4	-3.84E+05	6.09E+05	-3.80E+05	6.05E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-729. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1457. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

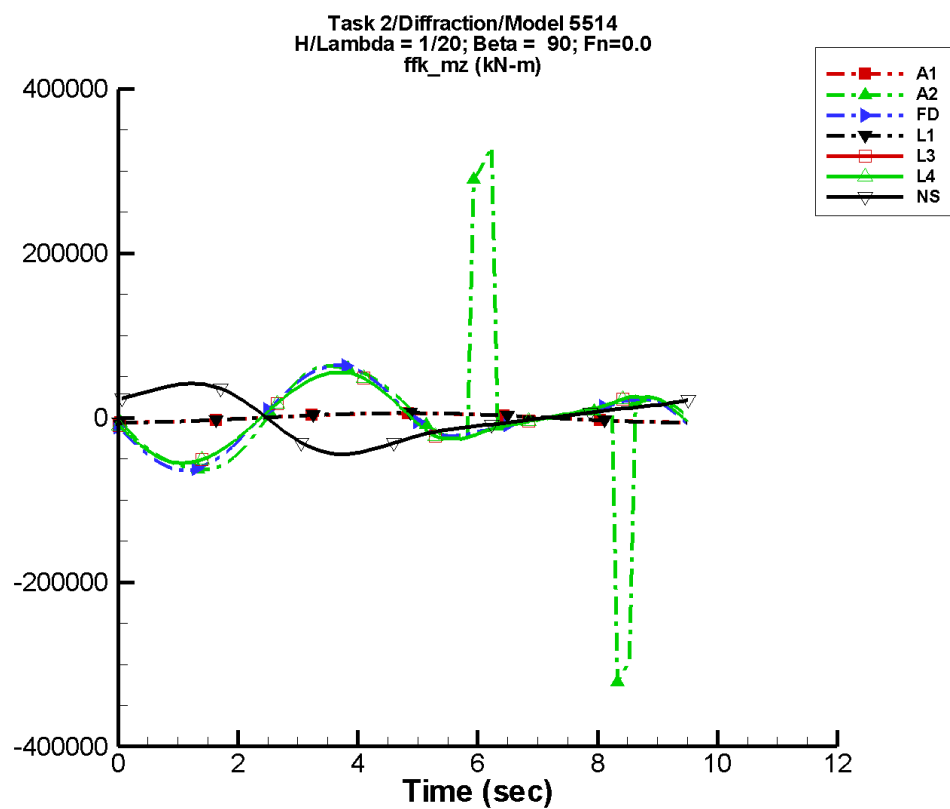
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.84	1.85E+03	-95	2.50	-152
A2	-47.6	2.36E+03	-98	6.97E+03	162
FD	1.86	2.70E+03	-96	6.62E+03	169
L1	1.32	1.91E+03	-94	1.41	-69
L3	-8.97	1.84E+03	-93	6.46E+03	173
L4	-8.97	1.84E+03	-93	6.46E+03	173
NF	—	—	—	—	—
NS	7.01	1.26E+03	-92	4.75E+03	174

Table H-1458. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.85E+03	1.85E+03	-1.85E+03	1.83E+03
A2	-9.05E+03	9.05E+03	-8.68E+03	8.67E+03
FD	-8.69E+03	8.70E+03	-8.37E+03	8.35E+03
L1	-1.91E+03	1.91E+03	-1.91E+03	1.90E+03
L3	-7.74E+03	7.74E+03	-7.64E+03	7.65E+03
L4	-7.74E+03	7.74E+03	-7.64E+03	7.65E+03
NF	—	—	—	—
NS	-5.68E+03	5.69E+03	-5.48E+03	5.49E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-730. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

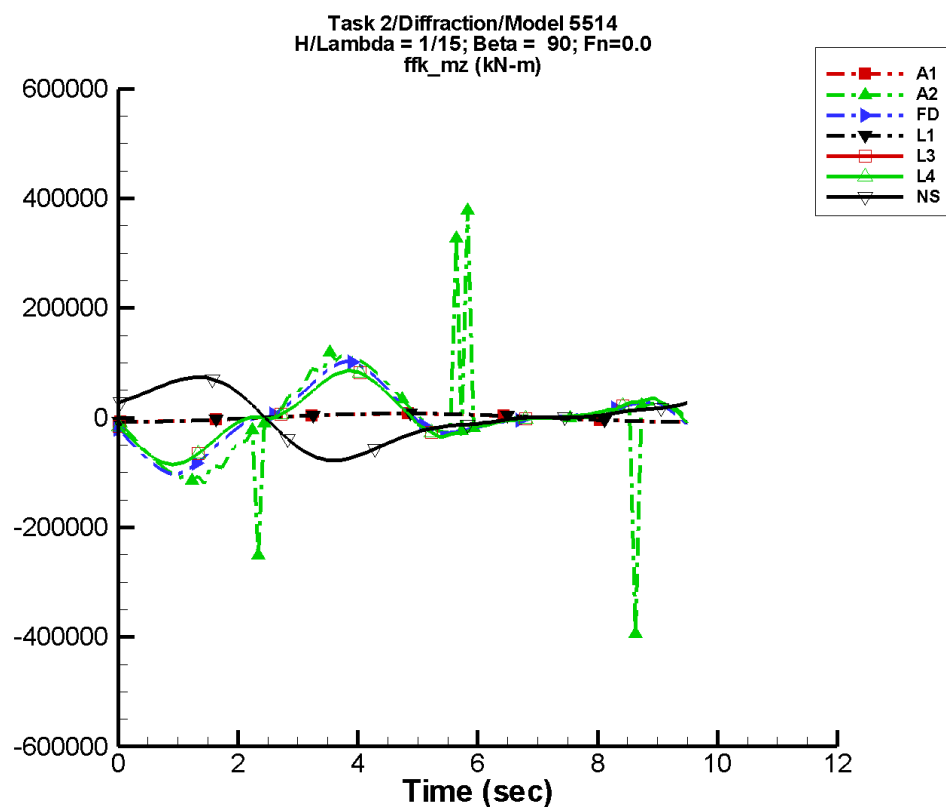
Table H-1459. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.49	5.54E+03	-95	7.47	-152
A2	2.63E+03	5.44E+04	-108	3.98E+03	54
FD	193.	2.17E+04	-96	4.33E+04	168
L1	3.98	5.73E+03	-94	4.26	-69
L3	-162.	1.63E+04	-94	3.90E+04	175
L4	-162.	1.63E+04	-94	3.90E+04	175
NF	—	—	—	—	—
NS	-177.	3.07E+04	87	1.70E+04	-13

Table H-1460. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.55E+03	5.54E+03	-5.54E+03	5.48E+03
A2	-3.22E+05	3.29E+05	-1.10E+05	1.48E+05
FD	-6.37E+04	6.37E+04	-6.11E+04	6.09E+04
L1	-5.73E+03	5.73E+03	-5.73E+03	5.71E+03
L3	-5.50E+04	5.50E+04	-5.45E+04	5.45E+04
L4	-5.50E+04	5.50E+04	-5.45E+04	5.45E+04
NF	—	—	—	—
NS	-4.45E+04	4.16E+04	-4.32E+04	4.05E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-731. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

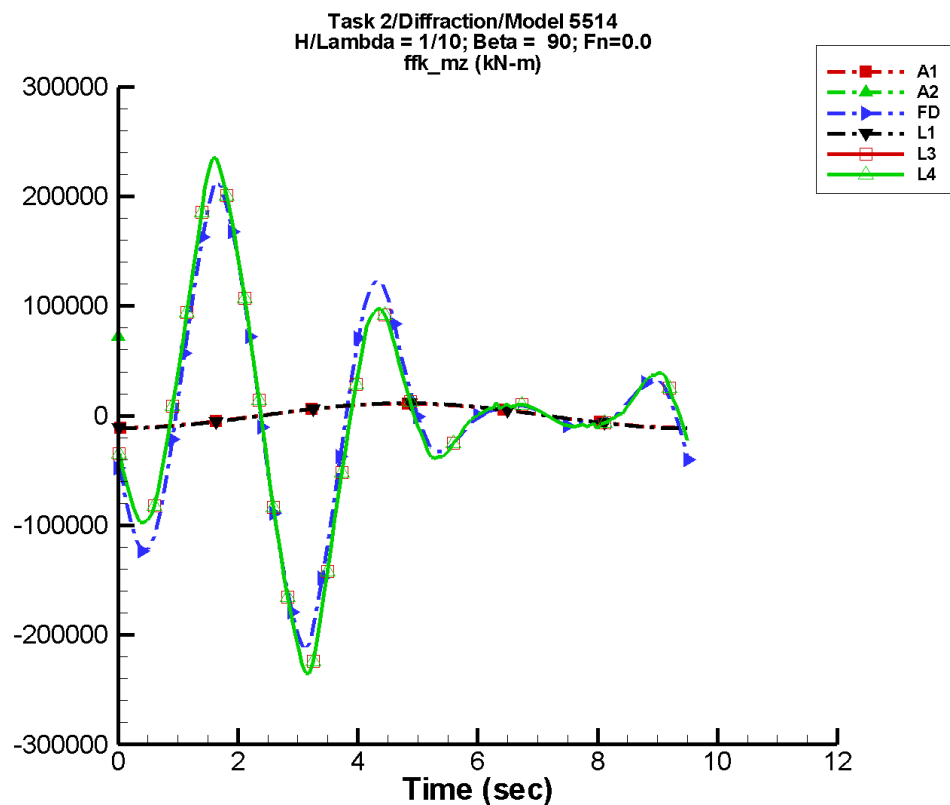
Table H-1461. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.31	7.38E+03	-95	9.95	-152
A2	339.	6.20E+04	-109	4.54E+04	147
FD	91.3	3.64E+04	-96	5.62E+04	169
L1	5.31	7.64E+03	-94	5.64	-69
L3	-568.	2.64E+04	-94	4.73E+04	175
L4	-568.	2.64E+04	-94	4.73E+04	175
NF	—	—	—	—	—
NS	-302.	4.49E+04	86	3.45E+04	-11

Table H-1462. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.38E+03	7.38E+03	-7.37E+03	7.30E+03
A2	-3.94E+05	3.79E+05	-1.09E+05	1.03E+05
FD	-1.03E+05	1.03E+05	-9.43E+04	9.48E+04
L1	-7.64E+03	7.64E+03	-7.64E+03	7.61E+03
L3	-8.63E+04	8.65E+04	-8.31E+04	8.31E+04
L4	-8.63E+04	8.65E+04	-8.31E+04	8.31E+04
NF	—	—	—	—
NS	-7.79E+04	7.38E+04	-7.62E+04	7.22E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-732. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

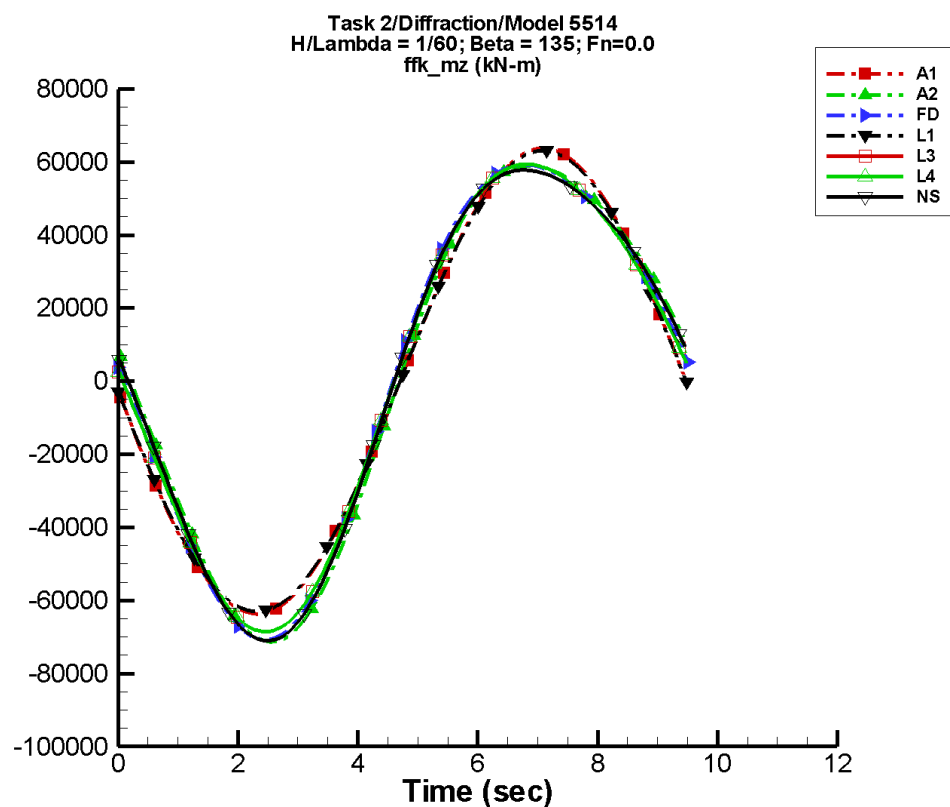
Table H-1463. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	11.0	1.11E+04	-95	14.9	-152
A2	-3.29E+04	3.45E+05	83	2.09E+05	-10
FD	-4.45E+03	1.80E+03	-144	5.17E+04	-21
L1	7.96	1.15E+04	-94	8.52	-69
L3	-3.94E+03	1.55E+04	70	5.35E+04	-9
L4	-3.94E+03	1.55E+04	70	5.35E+04	-9
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1464. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.11E+04	1.11E+04	-1.11E+04	1.10E+04
A2	7.19E+04	1.21E+05	7.19E+04	1.21E+05
FD	-2.14E+05	2.14E+05	-1.76E+05	1.76E+05
L1	-1.15E+04	1.15E+04	-1.15E+04	1.14E+04
L3	-2.35E+05	2.35E+05	-2.16E+05	2.16E+05
L4	-2.35E+05	2.35E+05	-2.16E+05	2.16E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-733. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1465. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

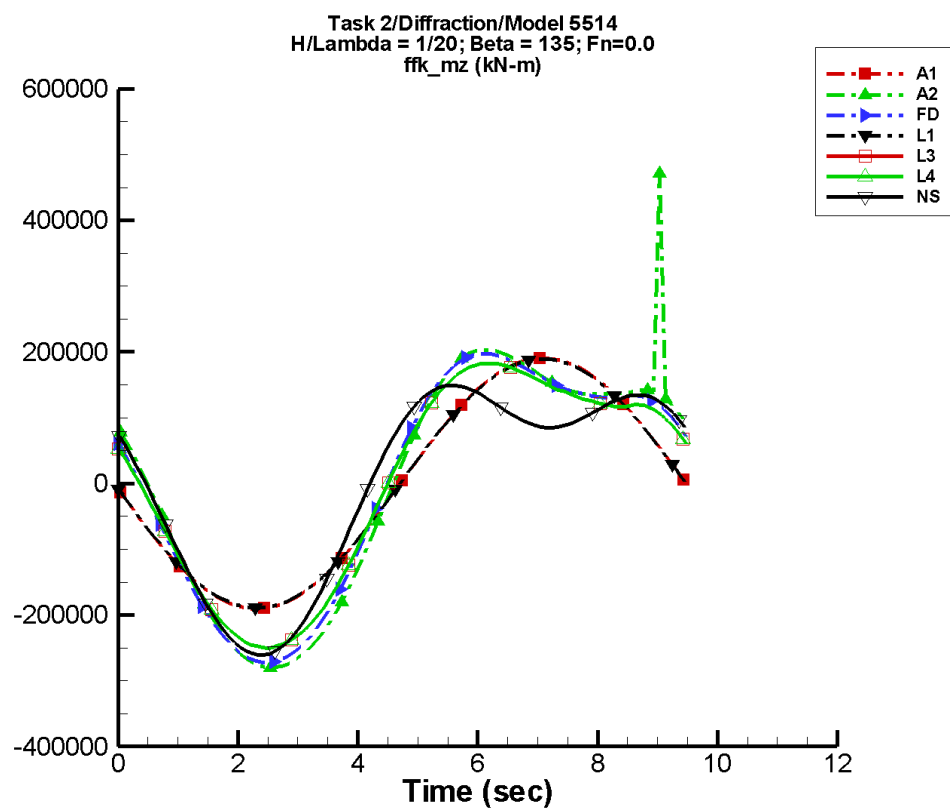
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	49.1	6.37E+04	178	74.4	154
A2	7.29	6.47E+04	174	7.83E+03	44
FD	-14.9	6.47E+04	177	7.37E+03	50
L1	0.968	6.31E+04	179	3.76	-88
L3	-7.85	6.36E+04	179	6.27E+03	48
L4	-7.85	6.36E+04	179	6.27E+03	48
NF	—	—	—	—	—
NS	8.03	6.41E+04	-179	8.13E+03	61

Table H-1466. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.37E+04	6.36E+04	-6.30E+04	6.30E+04
A2	-7.13E+04	5.90E+04	-7.04E+04	5.85E+04
FD	-7.09E+04	5.92E+04	-6.99E+04	5.87E+04
L1	-6.30E+04	6.30E+04	-6.28E+04	6.28E+04
L3	-6.86E+04	5.93E+04	-6.83E+04	5.91E+04
L4	-6.86E+04	5.93E+04	-6.83E+04	5.91E+04
NF	—	—	—	—
NS	-7.11E+04	5.78E+04	-7.01E+04	5.74E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-734. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

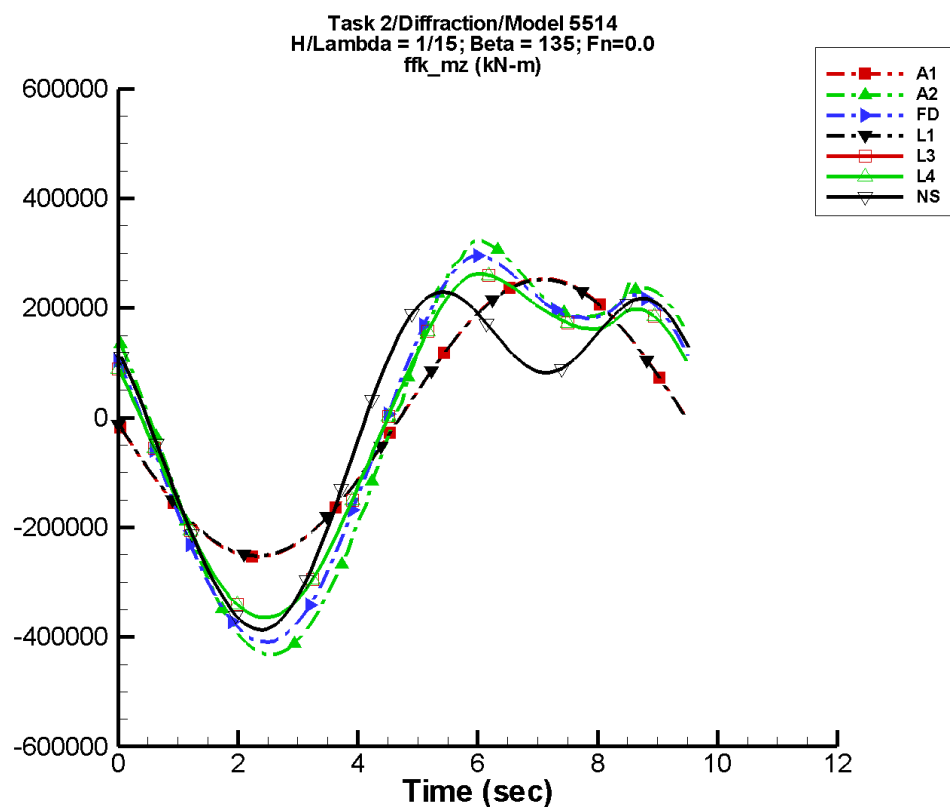
Table H-1467. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	147.	1.90E+05	178	223.	154
A2	2.21E+03	2.34E+05	171	7.01E+04	59
FD	-578.	2.24E+05	176	6.08E+04	58
L1	2.96	1.89E+05	179	11.3	-88
L3	-559.	2.08E+05	178	5.31E+04	60
L4	-559.	2.08E+05	178	5.31E+04	60
NF	—	—	—	—	—
NS	-373.	1.81E+05	-177	8.54E+04	89

Table H-1468. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.90E+05	1.90E+05	-1.88E+05	1.88E+05
A2	-2.80E+05	4.71E+05	-2.76E+05	1.99E+05
FD	-2.73E+05	1.97E+05	-2.68E+05	1.94E+05
L1	-1.89E+05	1.89E+05	-1.88E+05	1.88E+05
L3	-2.50E+05	1.83E+05	-2.48E+05	1.82E+05
L4	-2.50E+05	1.83E+05	-2.48E+05	1.82E+05
NF	—	—	—	—
NS	-2.61E+05	1.49E+05	-2.56E+05	1.46E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-735. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

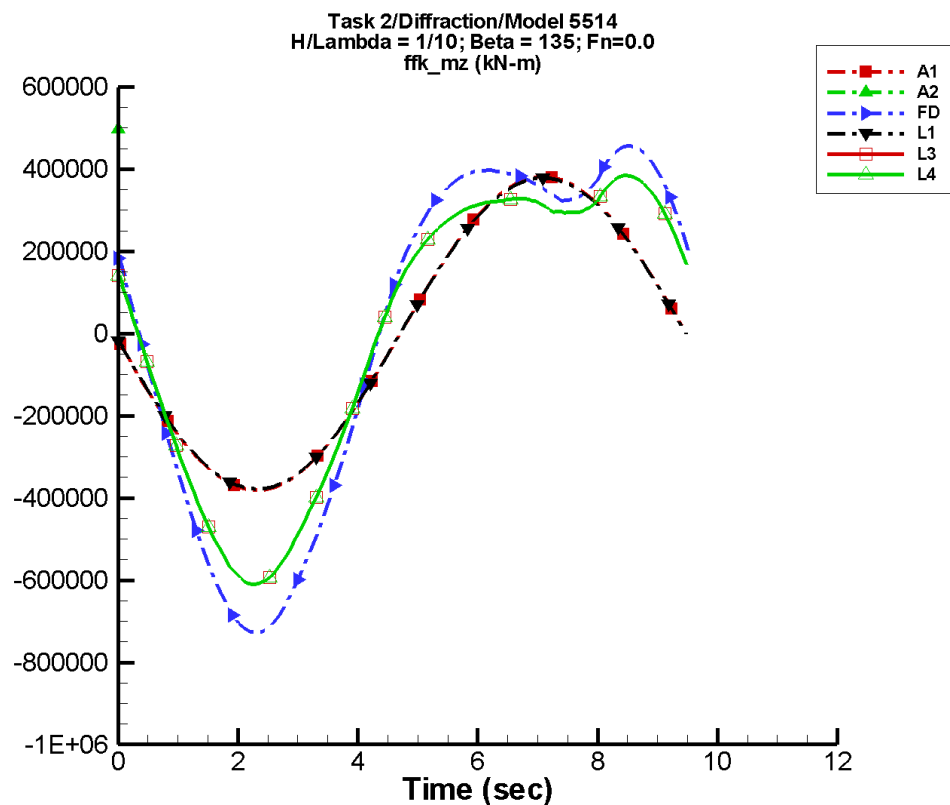
Table H-1469. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	196.	2.54E+05	178	296.	154
A2	-1.47E+03	3.47E+05	172	1.14E+05	56
FD	-857.	3.28E+05	175	9.90E+04	63
L1	3.87	2.52E+05	179	15.0	-88
L3	-920.	2.93E+05	177	8.42E+04	67
L4	-920.	2.93E+05	177	8.42E+04	67
NF	—	—	—	—	—
NS	-786.	2.53E+05	-176	1.45E+05	92

Table H-1470. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.54E+05	2.54E+05	-2.51E+05	2.51E+05
A2	-4.32E+05	3.25E+05	-4.26E+05	3.11E+05
FD	-4.09E+05	2.96E+05	-4.03E+05	2.88E+05
L1	-2.52E+05	2.52E+05	-2.51E+05	2.51E+05
L3	-3.64E+05	2.62E+05	-3.63E+05	2.60E+05
L4	-3.64E+05	2.62E+05	-3.63E+05	2.60E+05
NF	—	—	—	—
NS	-3.87E+05	2.29E+05	-3.83E+05	2.25E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-736. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

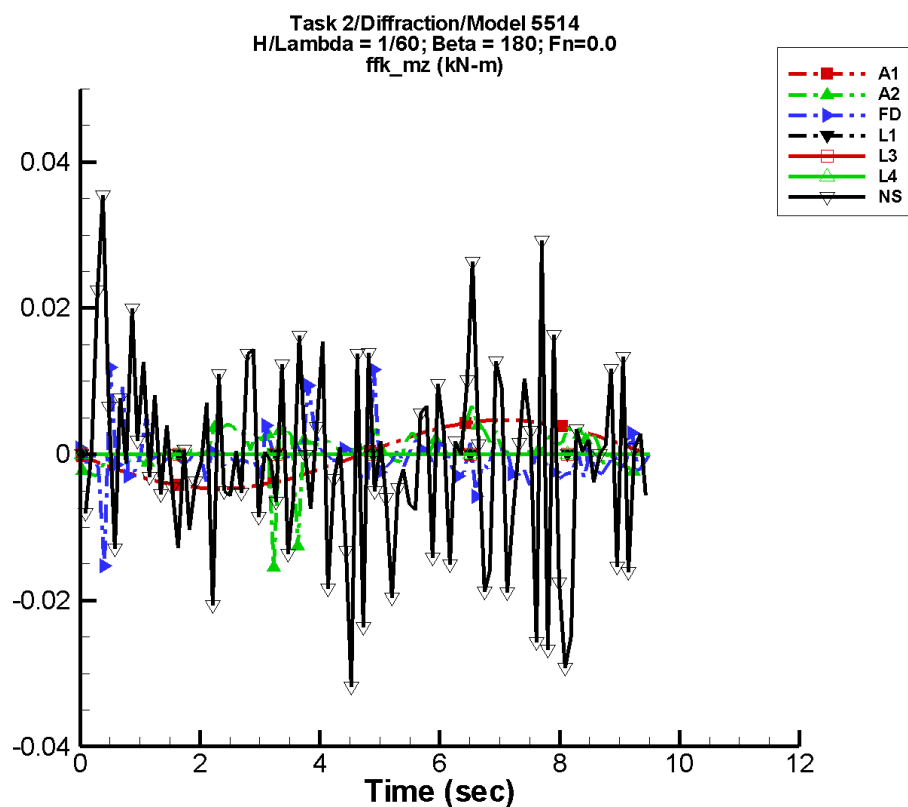
Table H-1471. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	294.	3.81E+05	178	445.	154
A2	5.09E+06	1.65E+07	-136	9.45E+06	59
FD	-1.87E+03	5.55E+05	174	1.82E+05	86
L1	5.86	3.78E+05	179	22.6	-88
L3	-1.41E+03	4.64E+05	176	1.45E+05	94
L4	-1.41E+03	4.64E+05	176	1.45E+05	94
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1472. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.81E+05	3.81E+05	-3.77E+05	3.77E+05
A2	4.78E+05	4.98E+05	4.78E+05	4.98E+05
FD	-7.28E+05	4.56E+05	-7.14E+05	4.41E+05
L1	-3.78E+05	3.78E+05	-3.77E+05	3.77E+05
L3	-6.09E+05	3.84E+05	-6.05E+05	3.80E+05
L4	-6.09E+05	3.84E+05	-6.05E+05	3.80E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-737. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1473. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

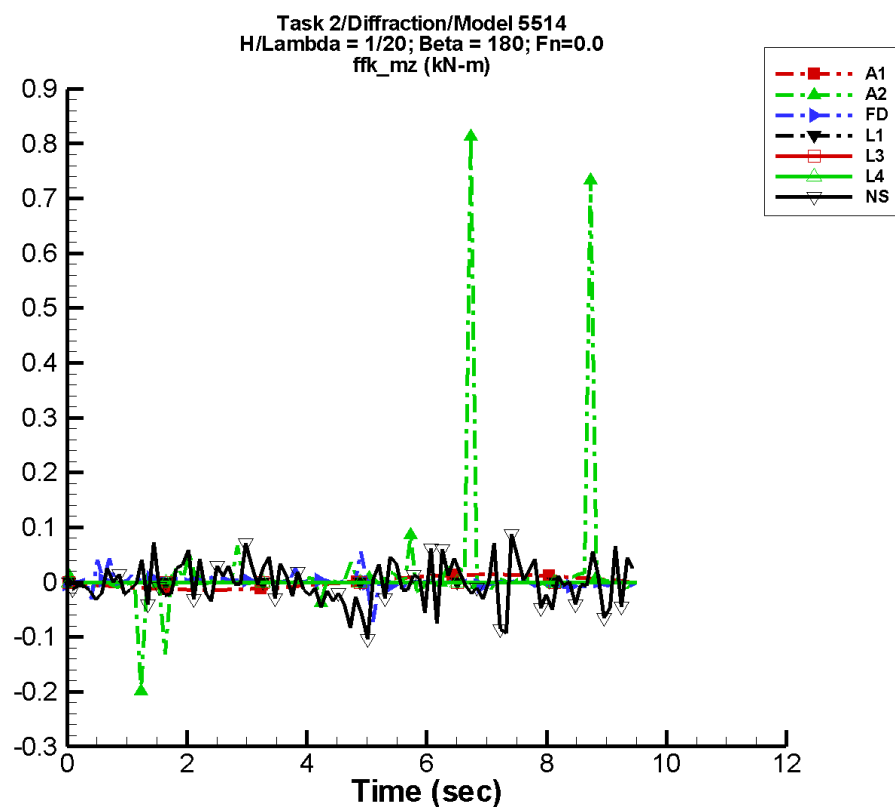
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.64E-06	4.69E-03	178	5.50E-06	155
A2	4.61E-04	1.34E-03	-117	1.91E-03	-106
FD	-3.48E-04	9.81E-04	-28	9.36E-04	51
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.14E-03	2.66E-03	64	2.51E-03	29

Table H-1474. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.69E-03	4.69E-03	-4.64E-03	4.64E-03
A2	-4.58E-02	6.13E-02	-1.26E-02	2.87E-03
FD	-1.53E-02	1.90E-02	-2.16E-03	3.61E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.18E-02	4.35E-02	-8.37E-03	8.98E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-738. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

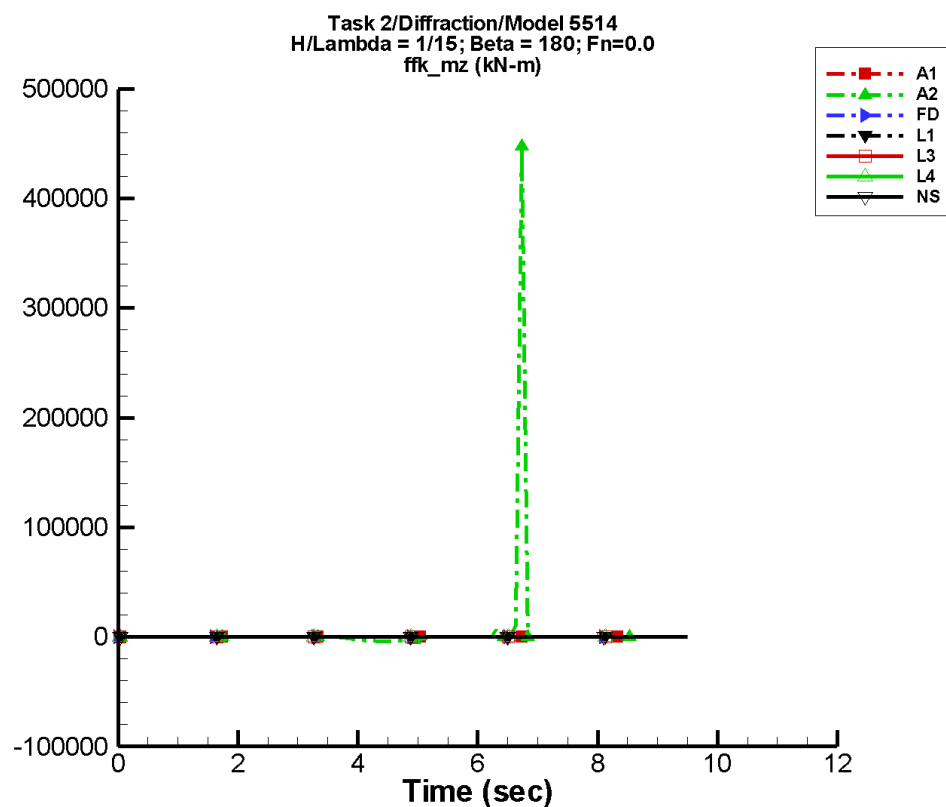
Table H-1475. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.09E-05	1.40E-02	178	1.65E-05	155
A2	-1.60E+03	3.40E+03	-102	3.90E+03	-118
FD	1.14E-03	4.96E-03	8	2.72E-03	-9
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.39E-03	5.77E-03	62	9.97E-03	-90

Table H-1476. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40E-02	1.40E-02	-1.39E-02	1.39E-02
A2	-2.71E+05	0.812	-3.61E+04	3.09E+03
FD	-7.36E-02	7.49E-02	-7.89E-03	1.62E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.104	8.82E-02	-4.35E-02	2.14E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-739. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

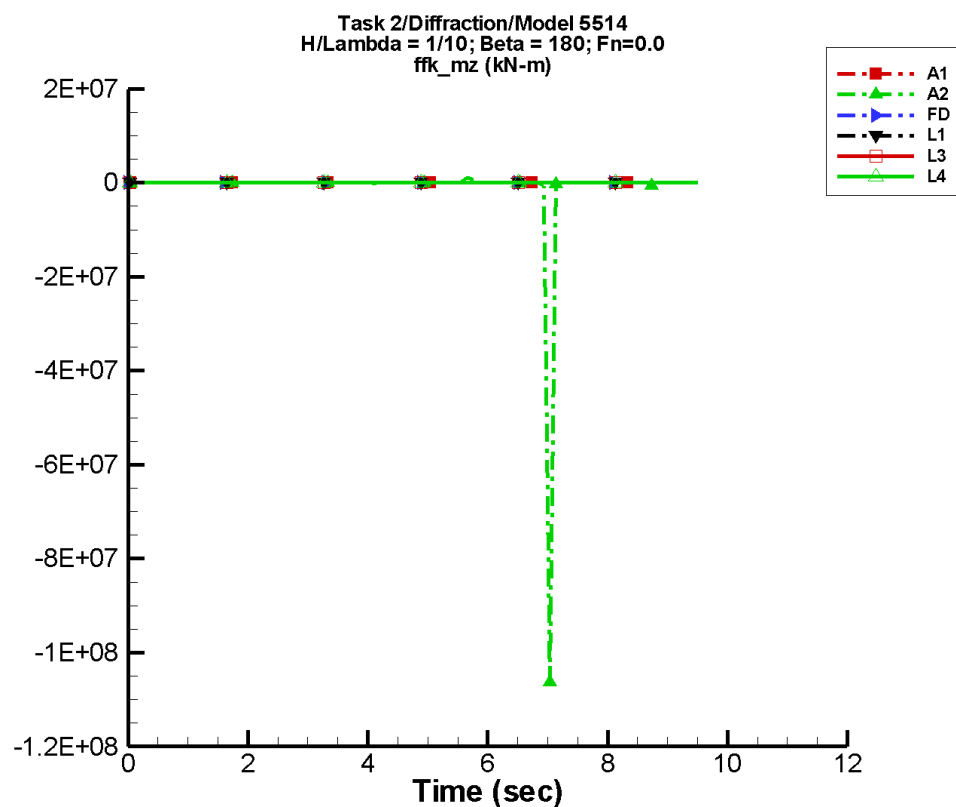
Table H-1477. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.45E-05	1.87E-02	178	2.19E-05	155
A2	4.49E+03	1.00E+04	-176	9.70E+03	-67
FD	9.25E-04	6.20E-03	42	1.62E-03	-77
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.87E-03	1.16E-02	-52	4.14E-03	42

Table H-1478. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E-02	1.87E-02	-1.85E-02	1.85E-02
A2	-3.95E+03	4.47E+05	-5.19E+03	6.16E+04
FD	-0.154	9.82E-02	-2.12E-02	2.12E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.168	0.185	-4.69E-02	3.96E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-740. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

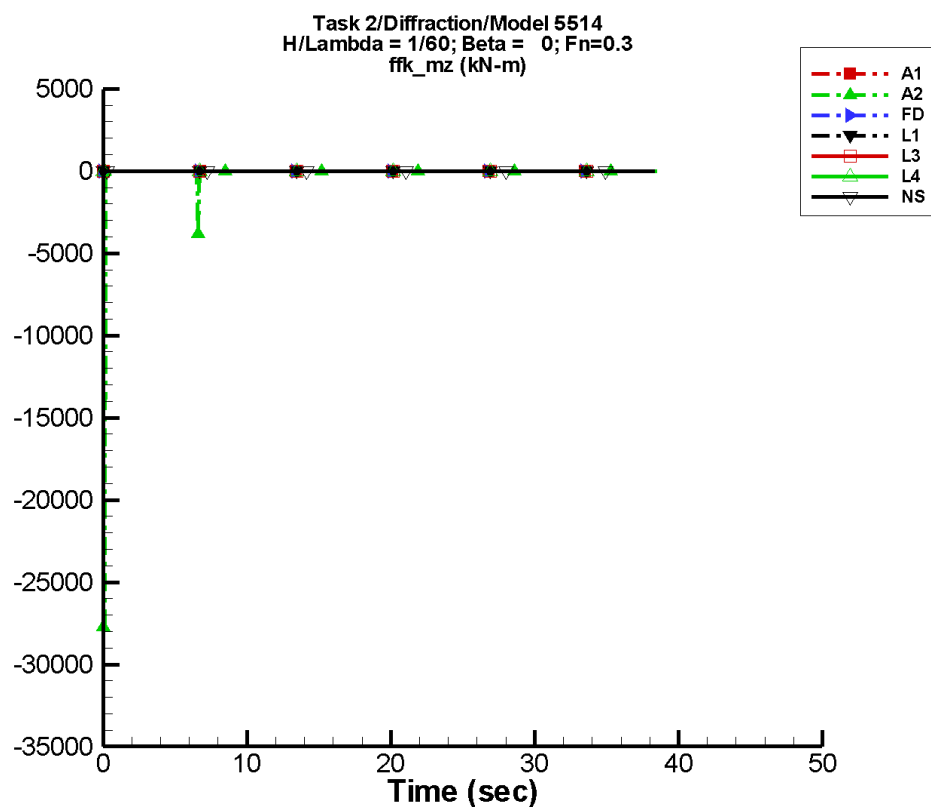
Table H-1479. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.18E-05	2.81E-02	178	3.29E-05	155
A2	-1.17E+06	2.23E+06	-5	2.06E+06	90
FD	-1.75E-03	9.43E-03	35	2.31E-03	-82
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1480. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.81E-02	2.81E-02	-2.78E-02	2.78E-02
A2	-1.06E+08	1.05E+06	-1.43E+07	1.32E+06
FD	-0.295	0.137	-3.97E-02	2.65E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-741. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1481. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

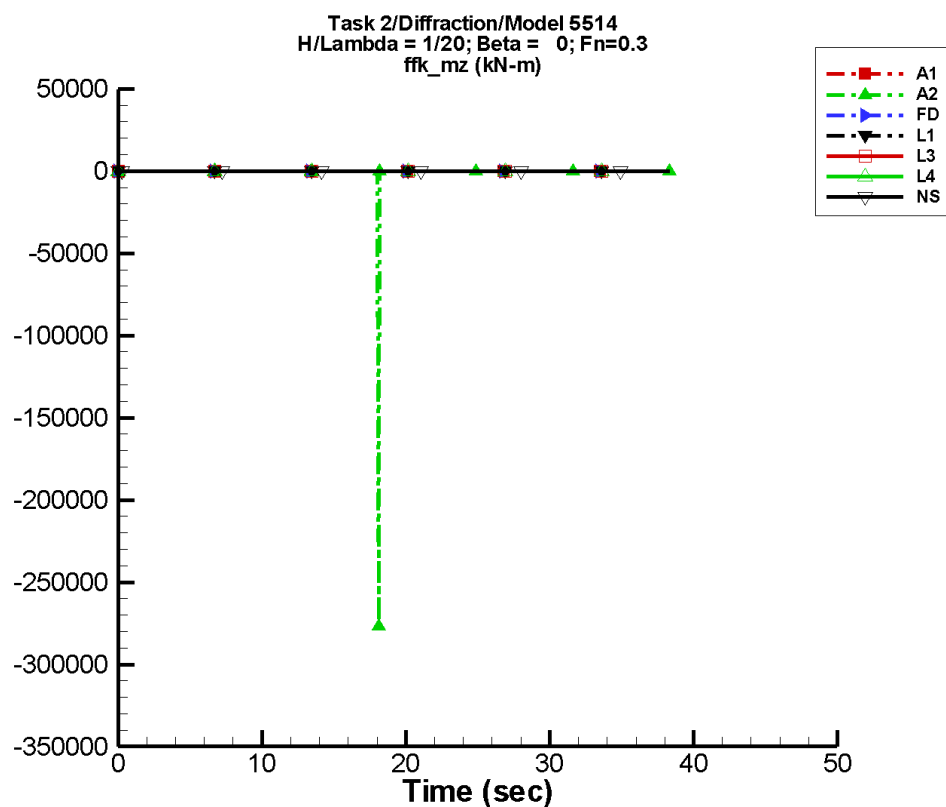
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.66E-06	4.69E-03	-177	5.51E-06	-9
A2	-9.74	21.1	-152	25.3	151
FD	-3.54E-04	2.63E-04	-168	2.12E-04	-177
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.52E-04	1.43E-03	100	4.87E-03	132

Table H-1482. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.69E-03	4.69E-03	-4.70E-03	4.69E-03
A2	-3.84E+03	3.80	-512.	44.0
FD	-5.15E-03	6.46E-03	-1.86E-03	1.68E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.11E-02	2.40E-02	-1.13E-02	1.50E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-742. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

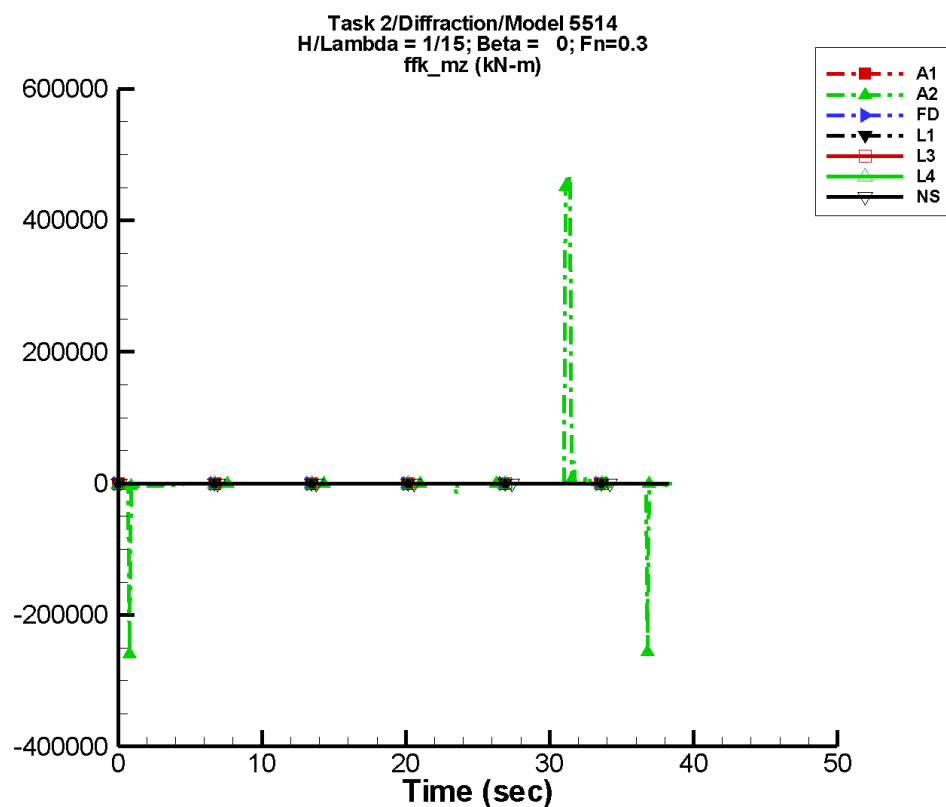
Table H-1483. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.10E-05	1.40E-02	-177	1.65E-05	-9
A2	-772.	1.47E+03	110	1.32E+03	-60
FD	-1.35E-04	6.79E-04	126	2.51E-04	-139
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.80E-04	3.34E-03	-55	5.05E-03	-55

Table H-1484. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40E-02	1.40E-02	-1.41E-02	1.40E-02
A2	-2.77E+05	2.06	-3.73E+04	3.20E+03
FD	-6.84E-03	6.67E-03	-3.03E-03	1.70E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.20E-02	8.96E-02	-1.60E-02	1.79E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-743. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

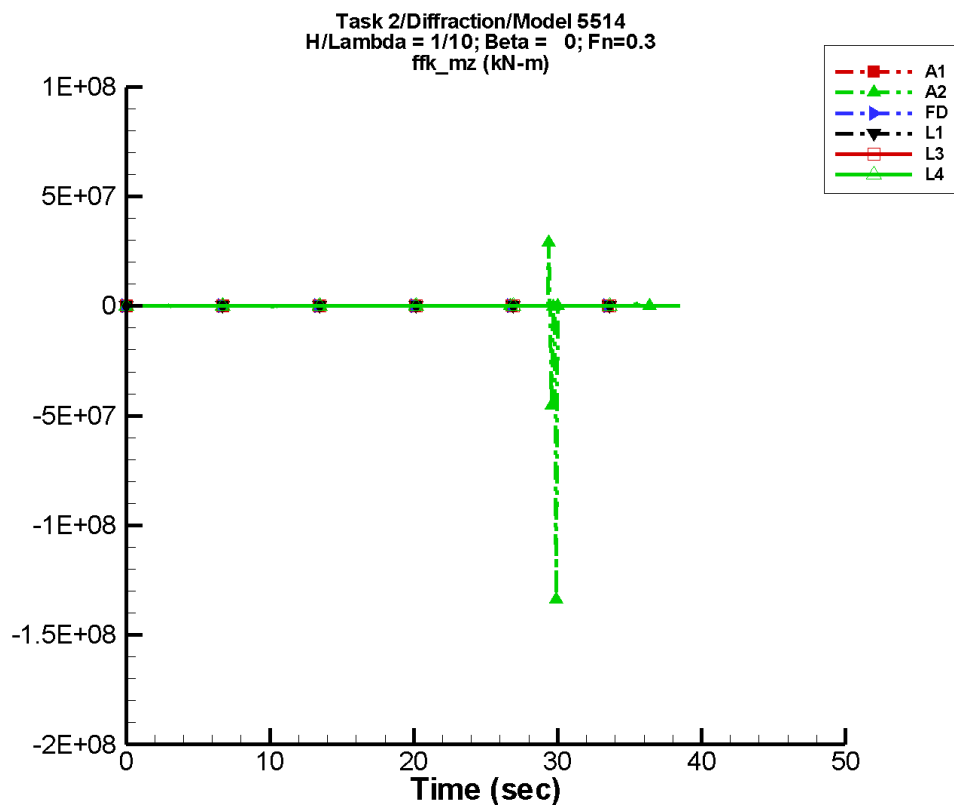
Table H-1485. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.46E-05	1.87E-02	-177	2.20E-05	-9
A2	3.43E+03	8.64E+03	180	1.19E+04	-109
FD	-5.12E-04	1.11E-03	100	6.21E-04	-155
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-9.56E-03	5.71E-03	-30	8.72E-03	-53

Table H-1486. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E-02	1.87E-02	-1.87E-02	1.87E-02
A2	-2.59E+05	4.67E+05	-3.83E+04	2.35E+05
FD	-1.04E-02	6.64E-03	-3.73E-03	3.28E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.80E-02	8.27E-02	-3.51E-02	1.05E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-744. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

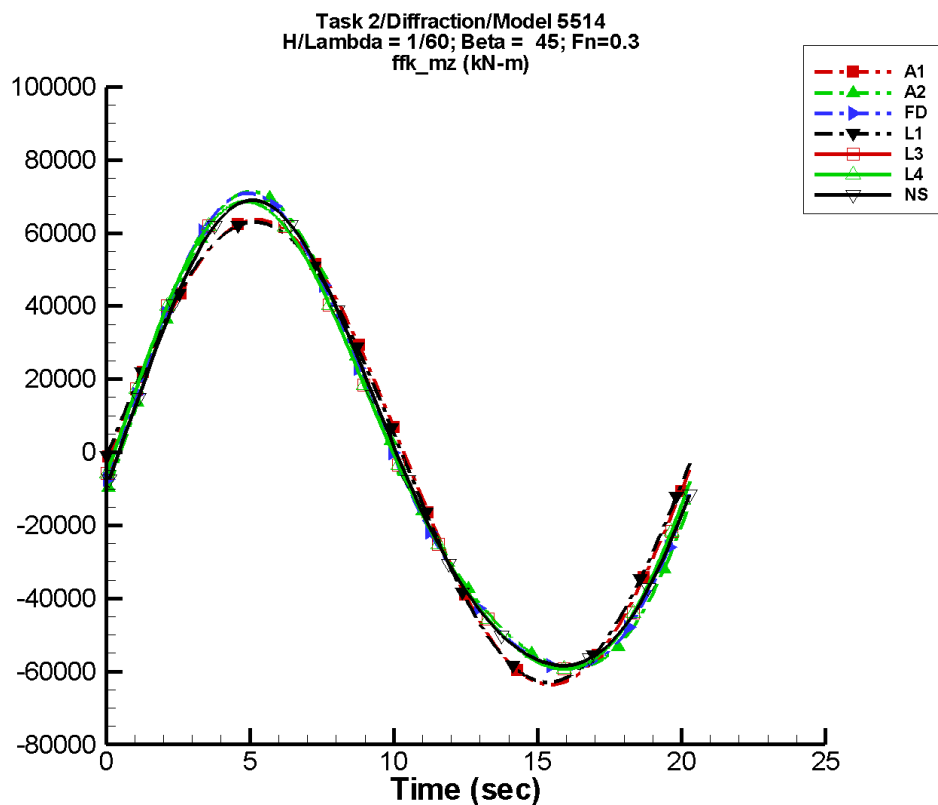
Table H-1487. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.19E-05	2.81E-02	-177	3.30E-05	-9
A2	-4.27E+05	8.09E+05	-7	7.40E+05	86
FD	-5.80E-04	1.02E-03	89	8.85E-04	-170
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1488. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.81E-02	2.81E-02	-2.81E-02	2.81E-02
A2	-1.34E+08	2.89E+07	-2.14E+07	2.30E+06
FD	-8.82E-03	9.30E-03	-4.65E-03	1.76E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-745. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1489. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

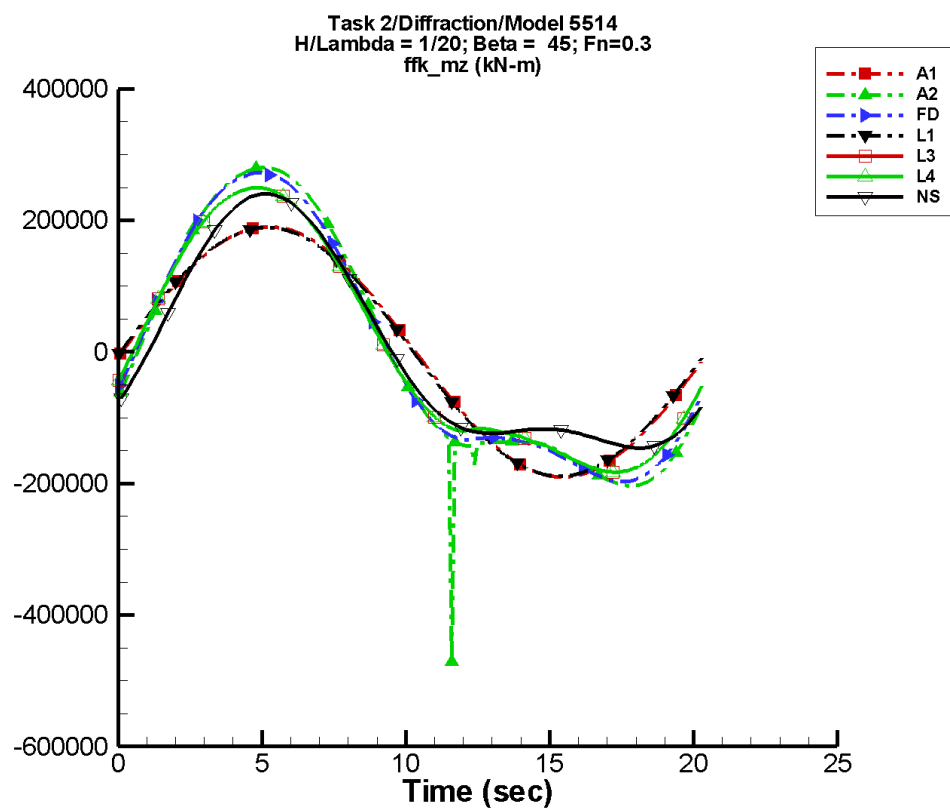
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-76.9	6.36E+04	-11	114.	-36
A2	-93.9	6.47E+04	-13	7.95E+03	-81
FD	-13.1	6.47E+04	-14	7.52E+03	-83
L1	12.8	6.30E+04	-5	40.1	85
L3	33.1	6.36E+04	-5	6.23E+03	-61
L4	33.1	6.36E+04	-5	6.23E+03	-61
NF	—	—	—	—	—
NS	-74.8	6.36E+04	-5	6.03E+03	-74

Table H-1490. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.36E+04	6.36E+04	-6.34E+04	6.38E+04
A2	-5.90E+04	7.14E+04	-5.89E+04	7.16E+04
FD	-5.92E+04	7.09E+04	-5.91E+04	7.06E+04
L1	-6.30E+04	6.30E+04	-6.29E+04	6.29E+04
L3	-5.93E+04	6.86E+04	-5.93E+04	6.85E+04
L4	-5.93E+04	6.86E+04	-5.93E+04	6.85E+04
NF	—	—	—	—
NS	-5.83E+04	6.90E+04	-5.79E+04	6.90E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-746. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

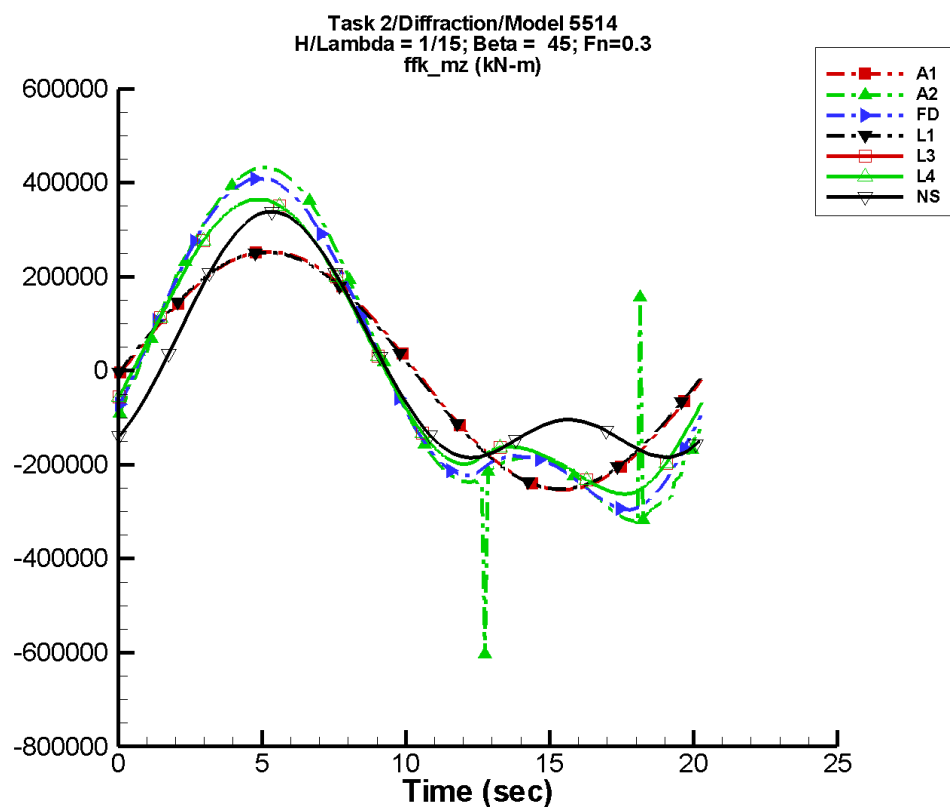
Table H-1491. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-230.	1.90E+05	-11	342.	-36
A2	-1.92E+03	2.30E+05	-10	6.73E+04	-92
FD	626.	2.25E+05	-12	6.33E+04	-91
L1	38.4	1.89E+05	-5	120.	85
L3	794.	2.08E+05	-4	5.27E+04	-72
L4	794.	2.08E+05	-4	5.27E+04	-72
NF	—	—	—	—	—
NS	-229.	1.85E+05	-5	6.09E+04	-90

Table H-1492. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.90E+05	1.90E+05	-1.90E+05	1.91E+05
A2	-4.71E+05	2.80E+05	-2.03E+05	2.81E+05
FD	-1.97E+05	2.73E+05	-1.97E+05	2.71E+05
L1	-1.89E+05	1.89E+05	-1.89E+05	1.89E+05
L3	-1.83E+05	2.50E+05	-1.82E+05	2.49E+05
L4	-1.83E+05	2.50E+05	-1.82E+05	2.49E+05
NF	—	—	—	—
NS	-1.46E+05	2.40E+05	-1.44E+05	2.40E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-747. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

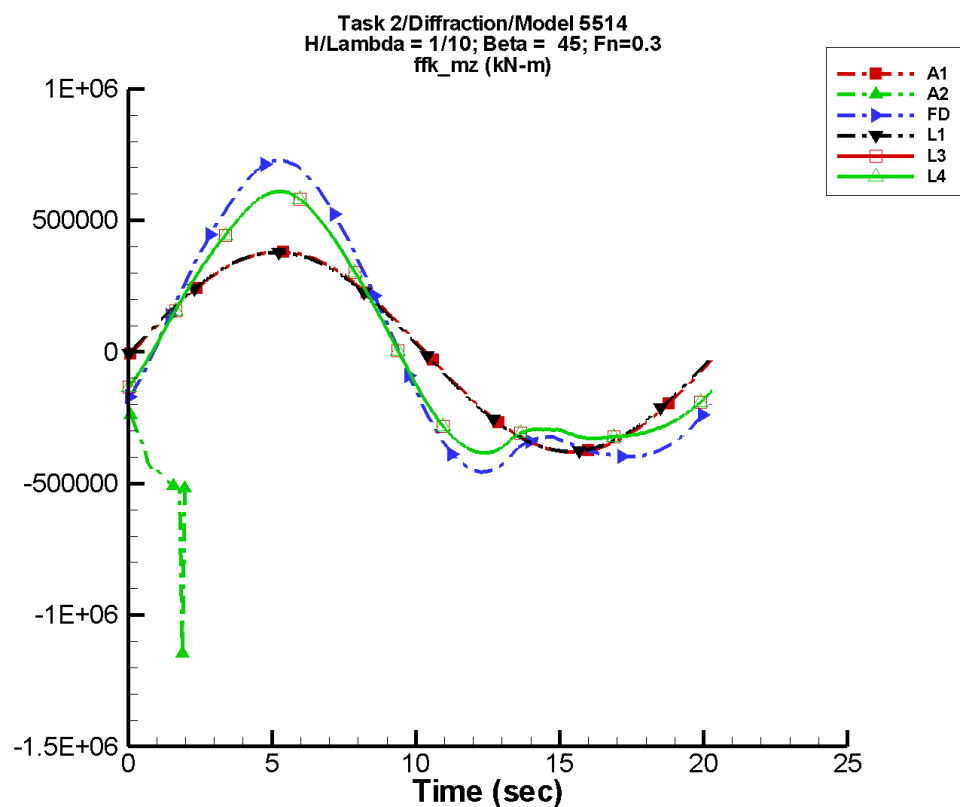
Table H-1493. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-306.	2.53E+05	-11	455.	-36
A2	-1.55E+03	3.44E+05	-6	1.13E+05	-89
FD	1.03E+03	3.28E+05	-12	1.02E+05	-96
L1	51.2	2.52E+05	-5	160.	85
L3	1.52E+03	2.94E+05	-3	8.32E+04	-79
L4	1.52E+03	2.94E+05	-3	8.32E+04	-79
NF	—	—	—	—	—
NS	6.76	2.31E+05	-6	1.15E+05	-102

Table H-1494. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.53E+05	2.53E+05	-2.53E+05	2.54E+05
A2	-6.03E+05	4.32E+05	-3.19E+05	4.31E+05
FD	-2.96E+05	4.09E+05	-2.94E+05	4.08E+05
L1	-2.52E+05	2.52E+05	-2.52E+05	2.52E+05
L3	-2.63E+05	3.64E+05	-2.62E+05	3.64E+05
L4	-2.63E+05	3.64E+05	-2.62E+05	3.64E+05
NF	—	—	—	—
NS	-1.85E+05	3.39E+05	-1.82E+05	3.35E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-748. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

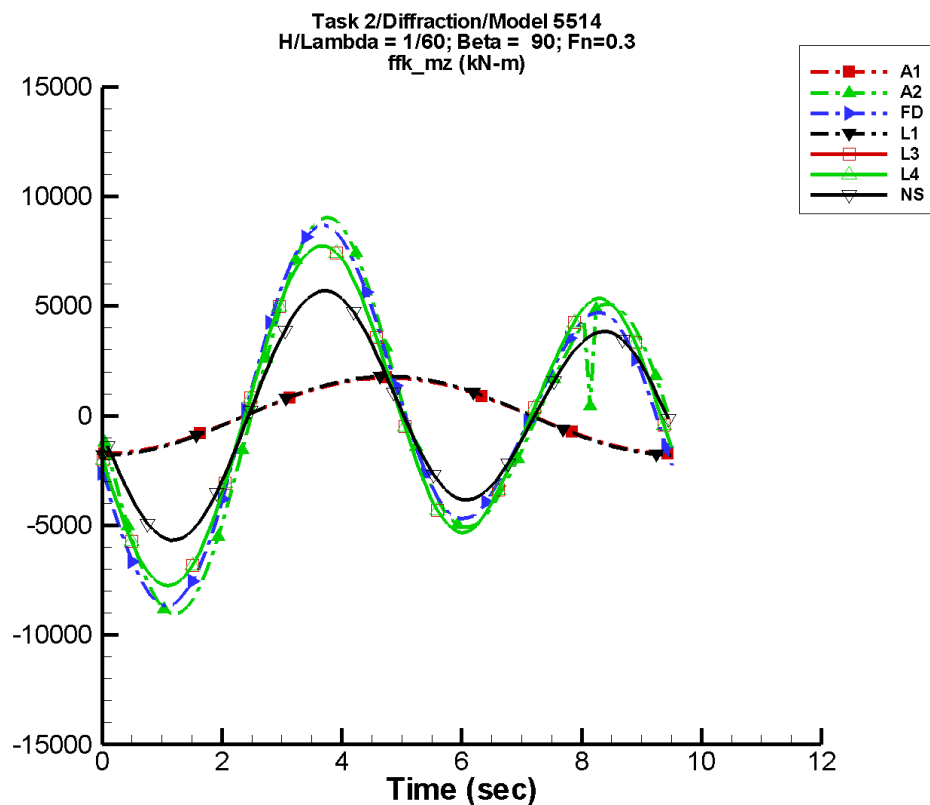
Table H-1495. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-460.	3.81E+05	-11	683.	-36
A2	6.41E+05	1.28E+06	-81	6.67E+05	142
FD	1.28E+03	5.57E+05	-11	1.87E+05	-119
L1	76.9	3.78E+05	-5	241.	85
L3	1.68E+03	4.65E+05	-3	1.44E+05	-107
L4	1.68E+03	4.65E+05	-3	1.44E+05	-107
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1496. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.81E+05	3.81E+05	-3.80E+05	3.81E+05
A2	-1.14E+06	1.35E+05	-6.00E+05	1.31E+05
FD	-4.57E+05	7.28E+05	-4.53E+05	7.25E+05
L1	-3.78E+05	3.78E+05	-3.77E+05	3.77E+05
L3	-3.84E+05	6.10E+05	-3.83E+05	6.09E+05
L4	-3.84E+05	6.10E+05	-3.83E+05	6.09E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-749. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1497. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

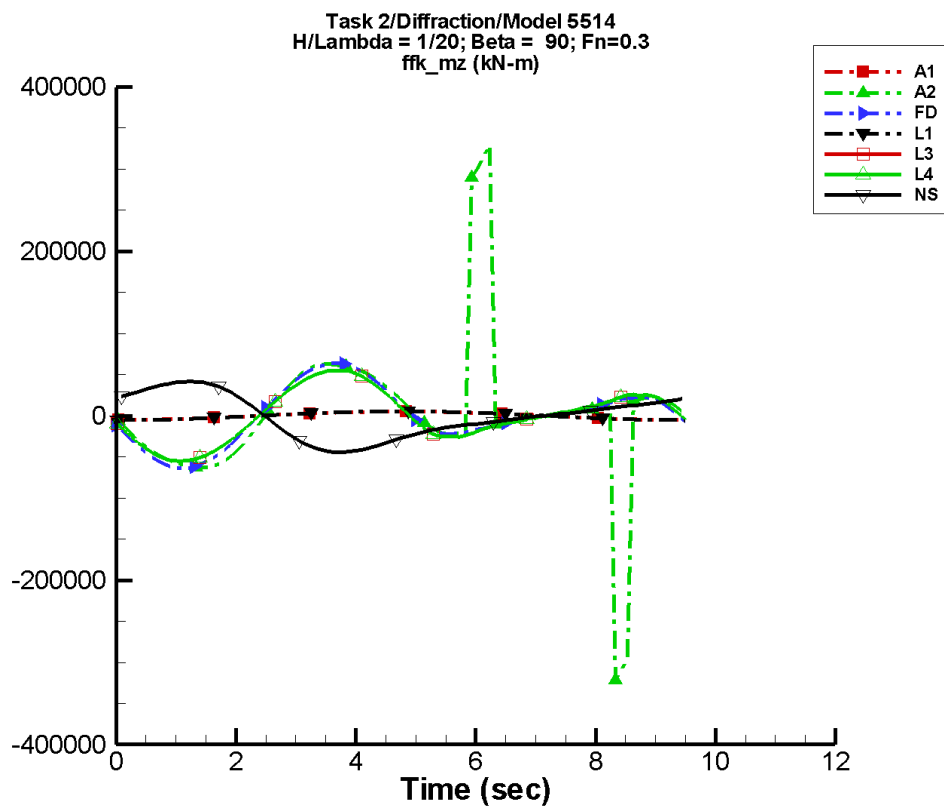
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.71	1.73E+03	-95	2.33	-152
A2	-47.6	2.36E+03	-98	6.97E+03	162
FD	1.87	2.70E+03	-96	6.62E+03	169
L1	1.25	1.80E+03	-94	1.33	-69
L3	-8.96	1.84E+03	-93	6.46E+03	173
L4	-8.96	1.84E+03	-93	6.46E+03	173
NF	—	—	—	—	—
NS	6.77	1.26E+03	-92	4.75E+03	174

Table H-1498. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.73E+03	1.73E+03	-1.73E+03	1.71E+03
A2	-9.05E+03	9.05E+03	-8.68E+03	8.67E+03
FD	-8.69E+03	8.70E+03	-8.37E+03	8.35E+03
L1	-1.80E+03	1.80E+03	-1.80E+03	1.79E+03
L3	-7.74E+03	7.74E+03	-7.64E+03	7.65E+03
L4	-7.74E+03	7.74E+03	-7.64E+03	7.65E+03
NF	—	—	—	—
NS	-5.68E+03	5.70E+03	-5.49E+03	5.49E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-750. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

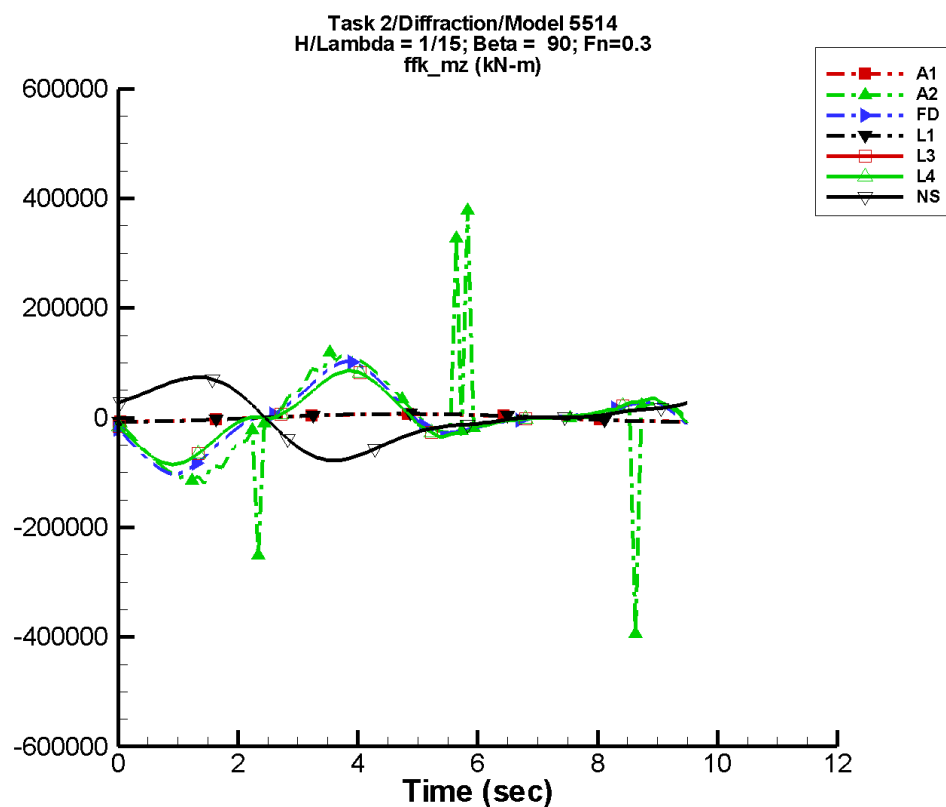
Table H-1499. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.13	5.18E+03	-95	6.98	-152
A2	2.63E+03	5.44E+04	-108	3.98E+03	54
FD	193.	2.17E+04	-96	4.33E+04	168
L1	3.74	5.39E+03	-94	4.01	-69
L3	-162.	1.63E+04	-94	3.90E+04	175
L4	-162.	1.63E+04	-94	3.90E+04	175
NF	—	—	—	—	—
NS	-165.	3.07E+04	87	1.70E+04	-13

Table H-1500. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.18E+03	5.18E+03	-5.17E+03	5.12E+03
A2	-3.22E+05	3.29E+05	-1.10E+05	1.48E+05
FD	-6.37E+04	6.37E+04	-6.11E+04	6.09E+04
L1	-5.39E+03	5.39E+03	-5.39E+03	5.37E+03
L3	-5.50E+04	5.50E+04	-5.45E+04	5.45E+04
L4	-5.50E+04	5.50E+04	-5.45E+04	5.45E+04
NF	—	—	—	—
NS	-4.45E+04	4.16E+04	-4.32E+04	4.05E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-751. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

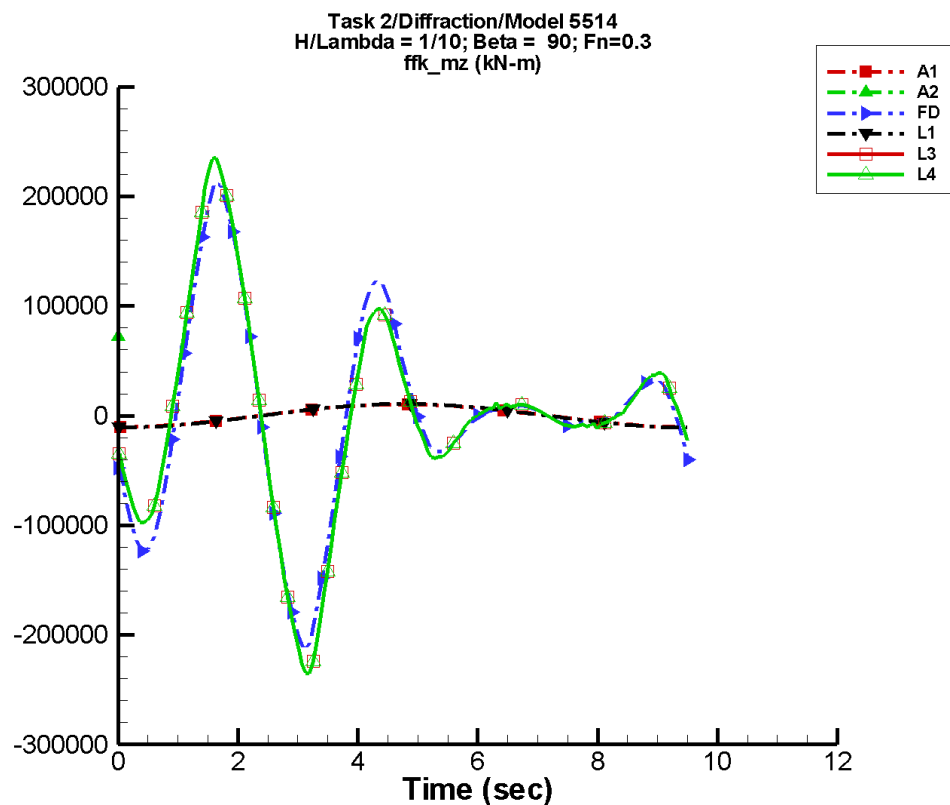
Table H-1501. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.83	6.90E+03	-95	9.30	-152
A2	339.	6.20E+04	-109	4.54E+04	147
FD	91.5	3.64E+04	-96	5.62E+04	169
L1	5.01	7.18E+03	-94	5.32	-69
L3	-568.	2.64E+04	-94	4.73E+04	175
L4	-568.	2.64E+04	-94	4.73E+04	175
NF	—	—	—	—	—
NS	-302.	4.49E+04	86	3.45E+04	-11

Table H-1502. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.90E+03	6.90E+03	-6.89E+03	6.82E+03
A2	-3.94E+05	3.79E+05	-1.09E+05	1.03E+05
FD	-1.03E+05	1.03E+05	-9.43E+04	9.48E+04
L1	-7.18E+03	7.18E+03	-7.18E+03	7.16E+03
L3	-8.63E+04	8.64E+04	-8.31E+04	8.31E+04
L4	-8.63E+04	8.64E+04	-8.31E+04	8.31E+04
NF	—	—	—	—
NS	-7.79E+04	7.38E+04	-7.62E+04	7.22E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-752. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

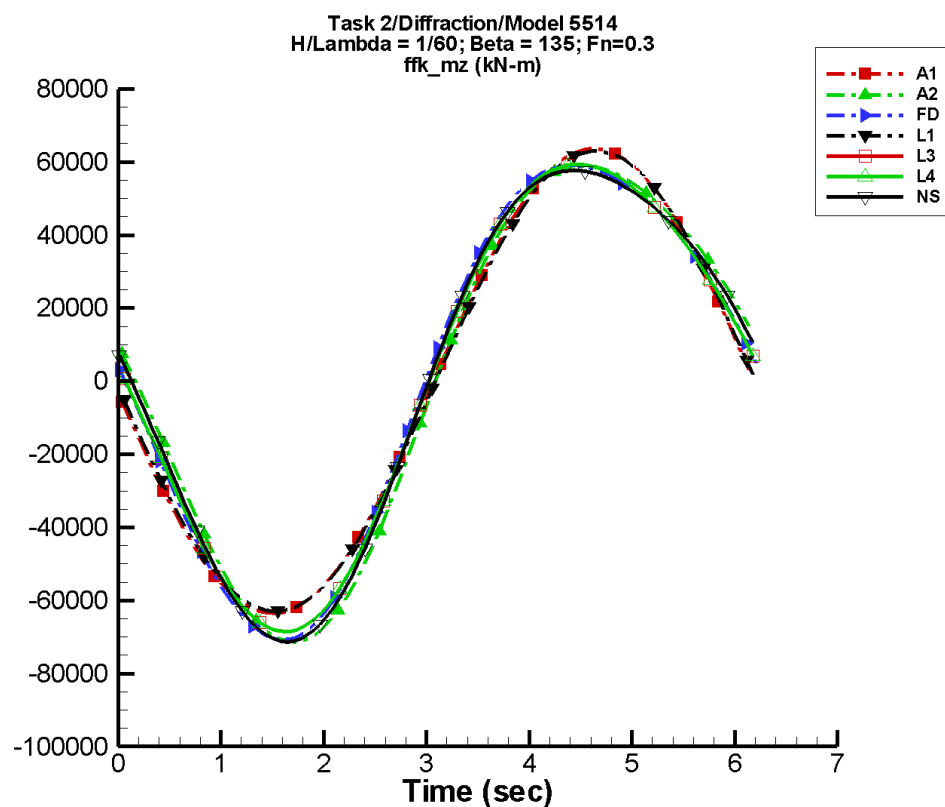
Table H-1503. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	10.3	1.04E+04	-95	14.0	-152
A2	-3.29E+04	3.45E+05	83	2.09E+05	-10
FD	-4.45E+03	1.80E+03	-144	5.17E+04	-21
L1	7.48	1.08E+04	-94	8.01	-69
L3	-3.94E+03	1.55E+04	70	5.35E+04	-9
L4	-3.94E+03	1.55E+04	70	5.35E+04	-9
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1504. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.04E+04	1.04E+04	-1.03E+04	1.02E+04
A2	7.19E+04	1.21E+05	7.19E+04	1.21E+05
FD	-2.14E+05	2.14E+05	-1.76E+05	1.76E+05
L1	-1.08E+04	1.08E+04	-1.08E+04	1.07E+04
L3	-2.35E+05	2.35E+05	-2.16E+05	2.16E+05
L4	-2.35E+05	2.35E+05	-2.16E+05	2.16E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-753. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1505. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

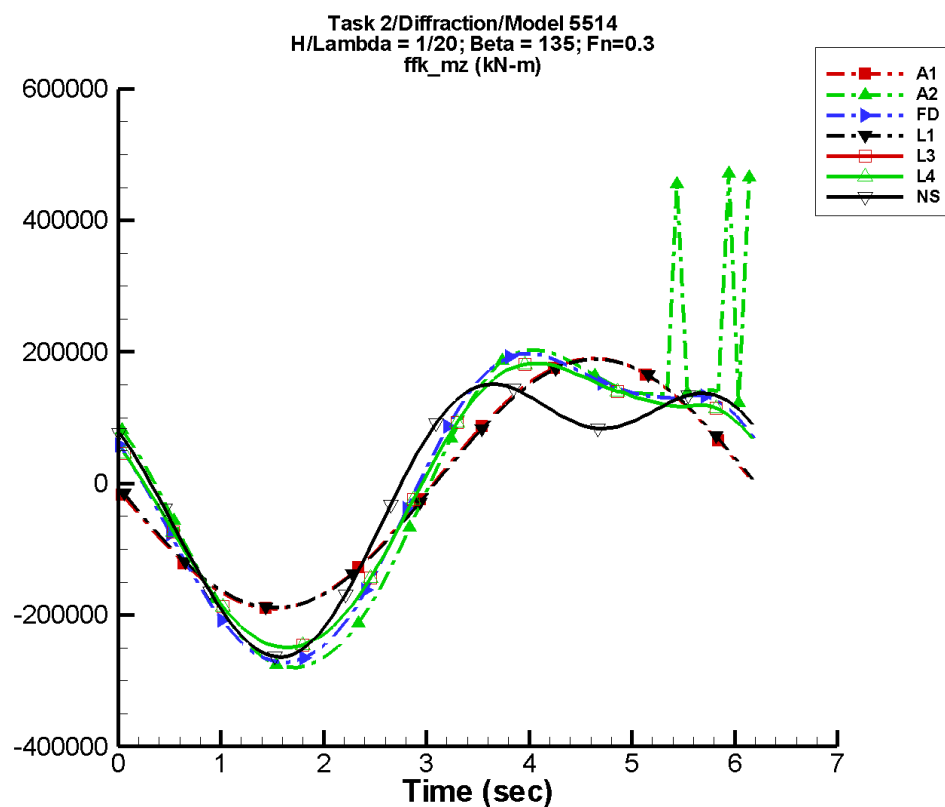
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	68.7	6.36E+04	176	104.	150
A2	44.9	6.47E+04	170	7.87E+03	36
FD	-36.4	6.47E+04	161	7.36E+03	17
L1	38.5	6.30E+04	171	80.2	135
L3	27.5	6.36E+04	171	6.30E+03	34
L4	27.5	6.36E+04	171	6.30E+03	34
NF	—	—	—	—	—
NS	35.3	6.42E+04	179	8.37E+03	59

Table H-1506. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.36E+04	6.36E+04	-6.19E+04	6.20E+04
A2	-7.13E+04	5.89E+04	-6.90E+04	5.79E+04
FD	-7.09E+04	5.92E+04	-6.86E+04	5.93E+04
L1	-6.29E+04	6.29E+04	-6.24E+04	6.24E+04
L3	-6.86E+04	5.93E+04	-6.78E+04	5.89E+04
L4	-6.86E+04	5.93E+04	-6.78E+04	5.89E+04
NF	—	—	—	—
NS	-7.14E+04	5.77E+04	-7.04E+04	5.72E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-754. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

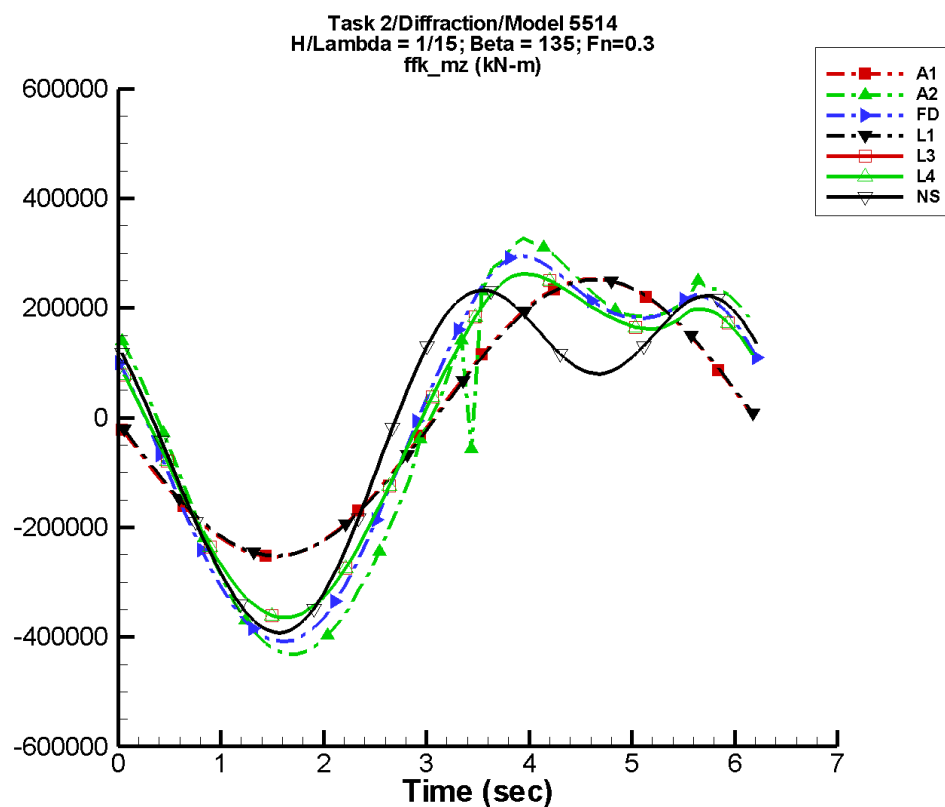
Table H-1507. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	206.	1.90E+05	176	312.	150
A2	1.29E+04	2.46E+05	163	7.47E+04	66
FD	-262.	2.25E+05	160	6.14E+04	24
L1	116.	1.89E+05	171	240.	135
L3	-459.	2.08E+05	170	5.49E+04	46
L4	-459.	2.08E+05	170	5.49E+04	46
NF	—	—	—	—	—
NS	-407.	1.82E+05	-178	8.74E+04	87

Table H-1508. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.90E+05	1.90E+05	-1.85E+05	1.85E+05
A2	-2.80E+05	4.71E+05	-2.71E+05	2.27E+05
FD	-2.73E+05	1.97E+05	-2.63E+05	1.90E+05
L1	-1.89E+05	1.89E+05	-1.87E+05	1.87E+05
L3	-2.50E+05	1.83E+05	-2.46E+05	1.80E+05
L4	-2.50E+05	1.83E+05	-2.46E+05	1.80E+05
NF	—	—	—	—
NS	-2.64E+05	1.51E+05	-2.59E+05	1.47E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-755. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

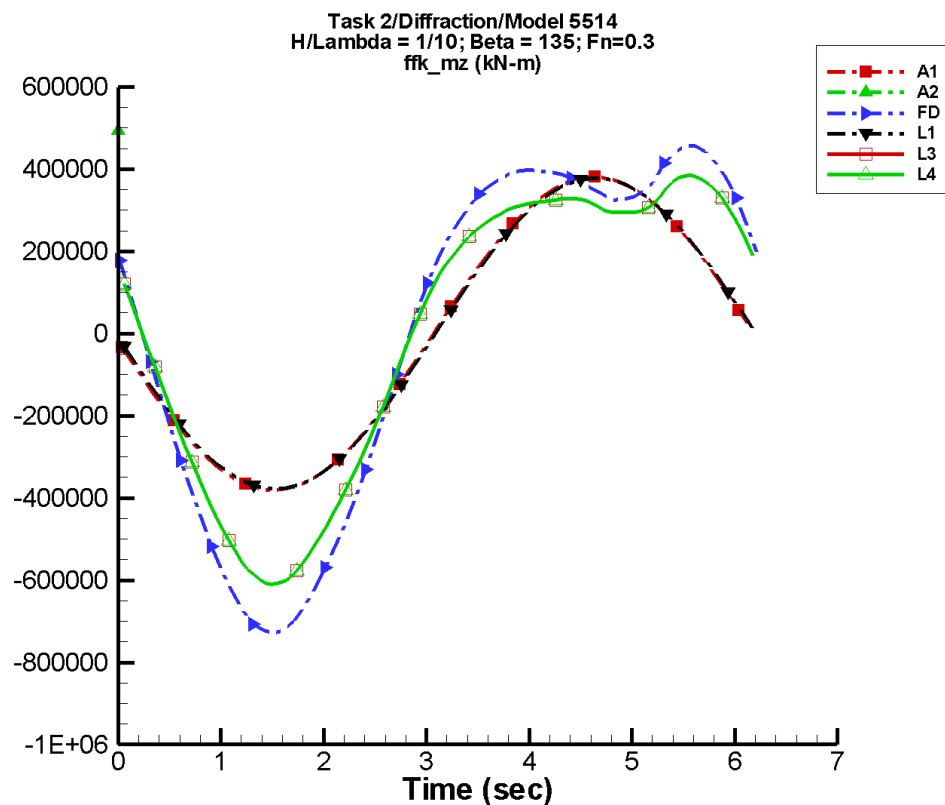
Table H-1509. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	274.	2.53E+05	176	415.	150
A2	-5.24E+03	3.46E+05	166	1.07E+05	49
FD	-384.	3.30E+05	159	9.88E+04	29
L1	154.	2.52E+05	171	321.	135
L3	-1.03E+03	2.95E+05	170	8.74E+04	53
L4	-1.03E+03	2.95E+05	170	8.74E+04	53
NF	—	—	—	—	—
NS	-845.	2.55E+05	-178	1.48E+05	90

Table H-1510. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.53E+05	2.53E+05	-2.46E+05	2.47E+05
A2	-4.32E+05	3.27E+05	-4.17E+05	2.97E+05
FD	-4.09E+05	2.96E+05	-3.95E+05	2.78E+05
L1	-2.52E+05	2.52E+05	-2.49E+05	2.49E+05
L3	-3.64E+05	2.63E+05	-3.60E+05	2.57E+05
L4	-3.64E+05	2.63E+05	-3.60E+05	2.57E+05
NF	—	—	—	—
NS	-3.92E+05	2.32E+05	-3.88E+05	2.28E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-756. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

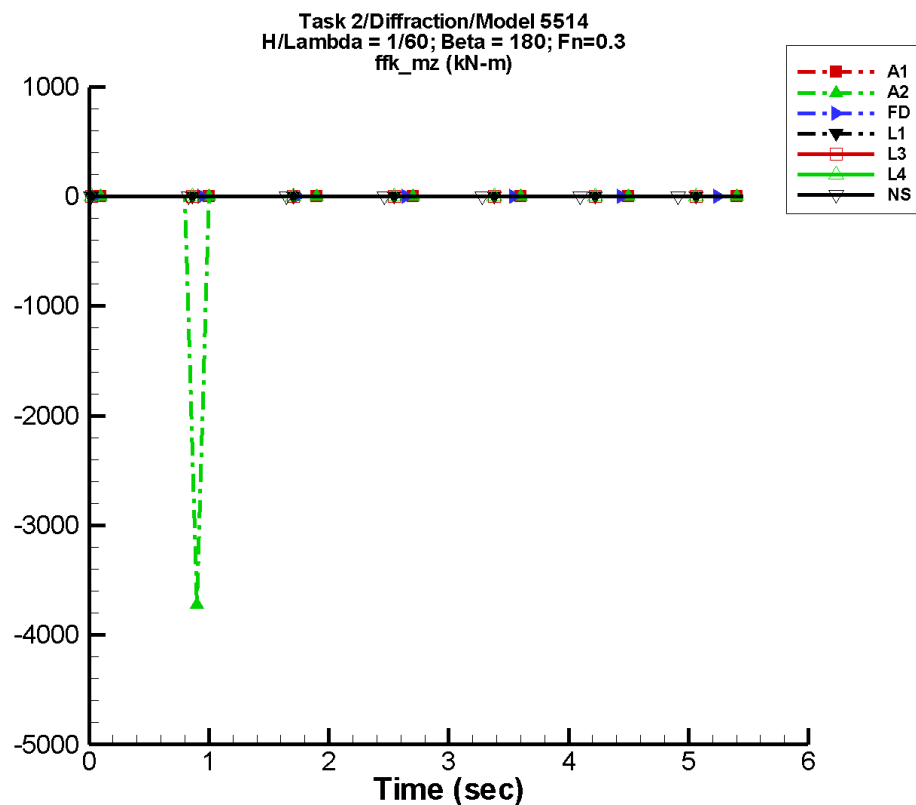
Table H-1511. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	411.	3.81E+05	176	624.	150
A2	1.46E+04	6.00E+05	175	3.67E+05	89
FD	-674.	5.58E+05	158	1.81E+05	53
L1	231.	3.78E+05	171	481.	135
L3	-1.02E+03	4.65E+05	169	1.48E+05	79
L4	-1.02E+03	4.65E+05	169	1.48E+05	79
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1512. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.80E+05	3.81E+05	-3.70E+05	3.71E+05
A2	4.60E+05	4.93E+05	4.60E+05	4.93E+05
FD	-7.28E+05	4.56E+05	-6.93E+05	4.19E+05
L1	-3.78E+05	3.78E+05	-3.74E+05	3.74E+05
L3	-6.10E+05	3.84E+05	-5.98E+05	3.72E+05
L4	-6.10E+05	3.84E+05	-5.98E+05	3.72E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-757. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1513. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

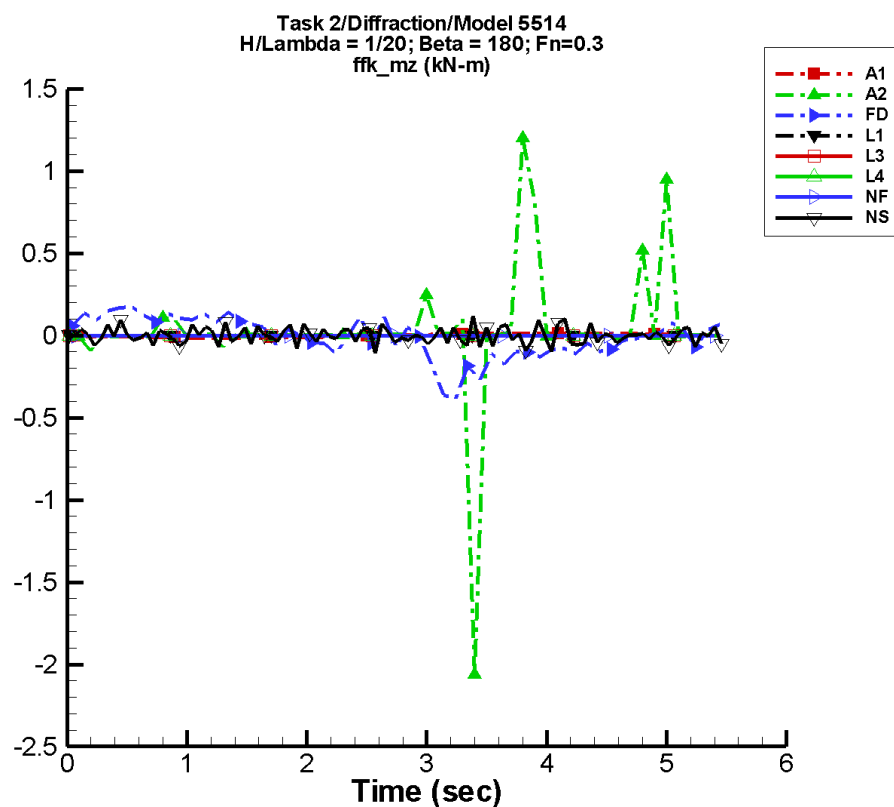
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-4.92E-06	4.69E-03	-170	8.94E-06	-11
A2	-45.4	96.4	-152	110.	150
FD	1.99E-02	8.11E-02	130	4.54E-02	147
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	9.79E-04	2.88E-03	99	2.82E-03	66

Table H-1514. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.69E-03	4.69E-03	-4.54E-03	4.53E-03
A2	-3.73E+03	3.78E-02	-497.	42.6
FD	-8.97E-02	0.220	-4.19E-02	0.162
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-3.04E-02	3.68E-02	-1.06E-02	1.58E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-758. Time history of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

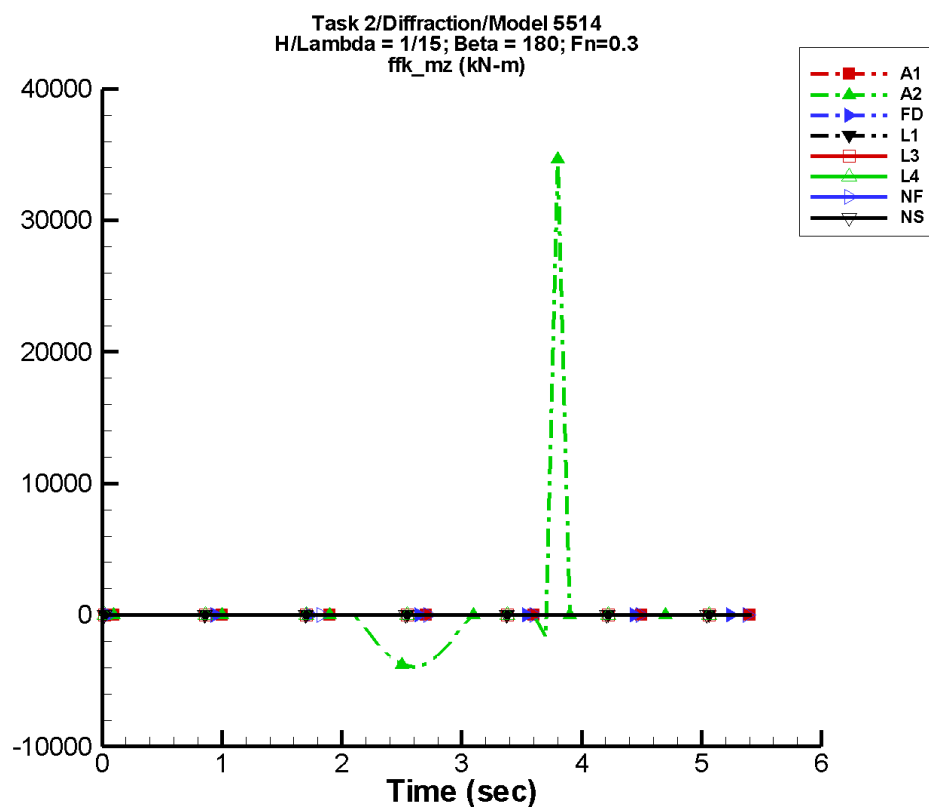
Table H-1515. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.47E-05	1.40E-02	-170	2.67E-05	-11
A2	3.25E-02	7.80E-02	139	8.53E-02	-137
FD	2.01E-03	0.143	122	4.57E-02	-31
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-4.21E-04	3.03E-03	-16	2.82E-03	-177

Table H-1516. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40E-02	1.40E-02	-1.36E-02	1.36E-02
A2	-2.06	1.20	-0.163	0.187
FD	-0.509	0.538	-0.278	0.176
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.121	0.117	-1.71E-02	1.15E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-759. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

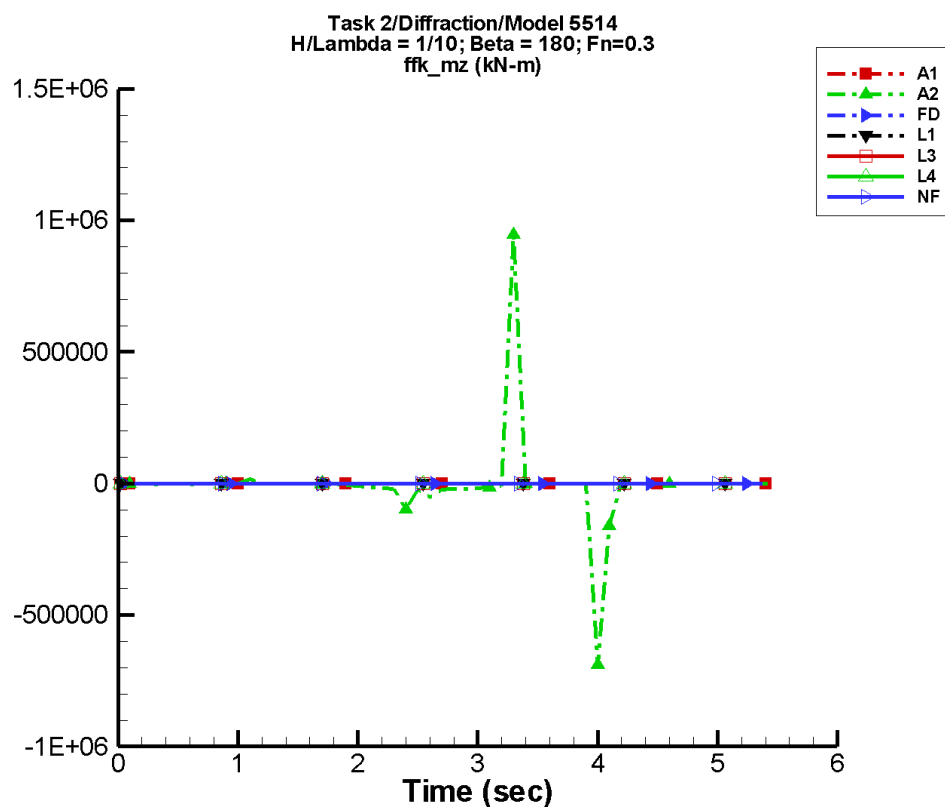
Table H-1517. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.96E-05	1.87E-02	-170	3.56E-05	-11
A2	167.	1.39E+03	166	1.87E+03	-46
FD	7.76E-03	0.225	108	0.182	-38
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-6.01E-03	2.16E-02	-45	6.67E-03	42

Table H-1518. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.87E-02	1.87E-02	-1.81E-02	1.80E-02
A2	-3.95E+03	3.46E+04	-2.83E+03	4.46E+03
FD	-1.31	0.975	-0.462	0.437
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.266	0.195	-5.30E-02	5.79E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-760. Time history of  $M_z^{fk}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

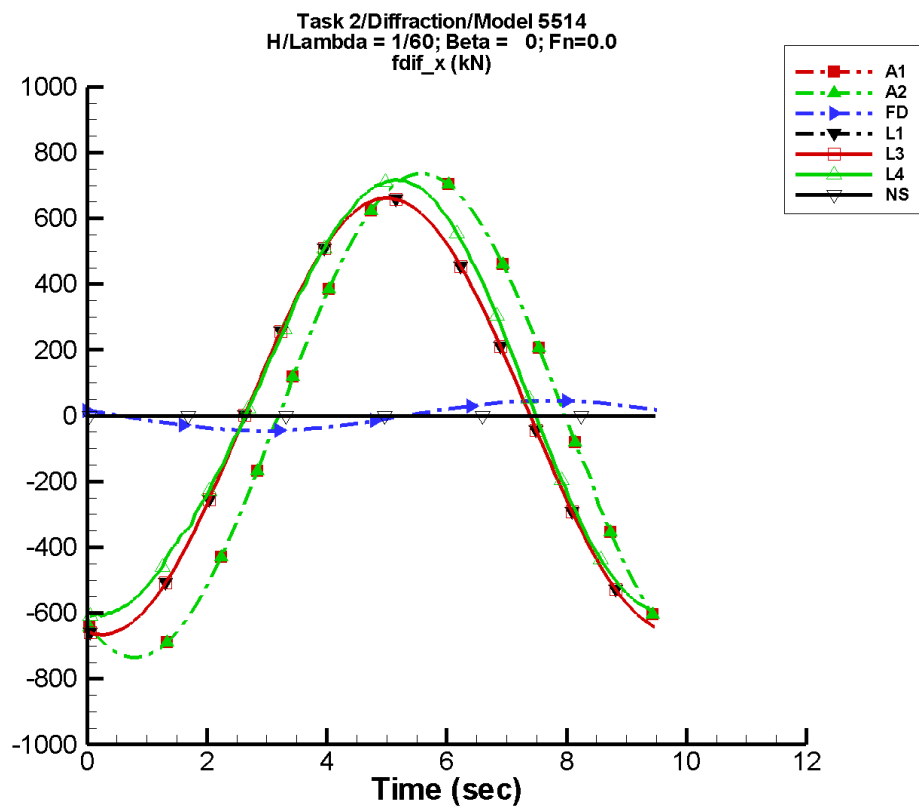
Table H-1519. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.94E-05	2.81E-02	-170	5.35E-05	-11
A2	-6.95E+03	1.78E+04	-66	3.98E+04	57
FD	3.66E-02	0.379	103	0.299	-63
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1520. Minimum and maximum of  $M_z^{\text{fk}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.81E-02	2.81E-02	-2.72E-02	2.71E-02
A2	-6.89E+05	9.45E+05	-1.17E+05	1.20E+05
FD	-2.57	2.79	-0.777	0.611
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-761. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1521. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

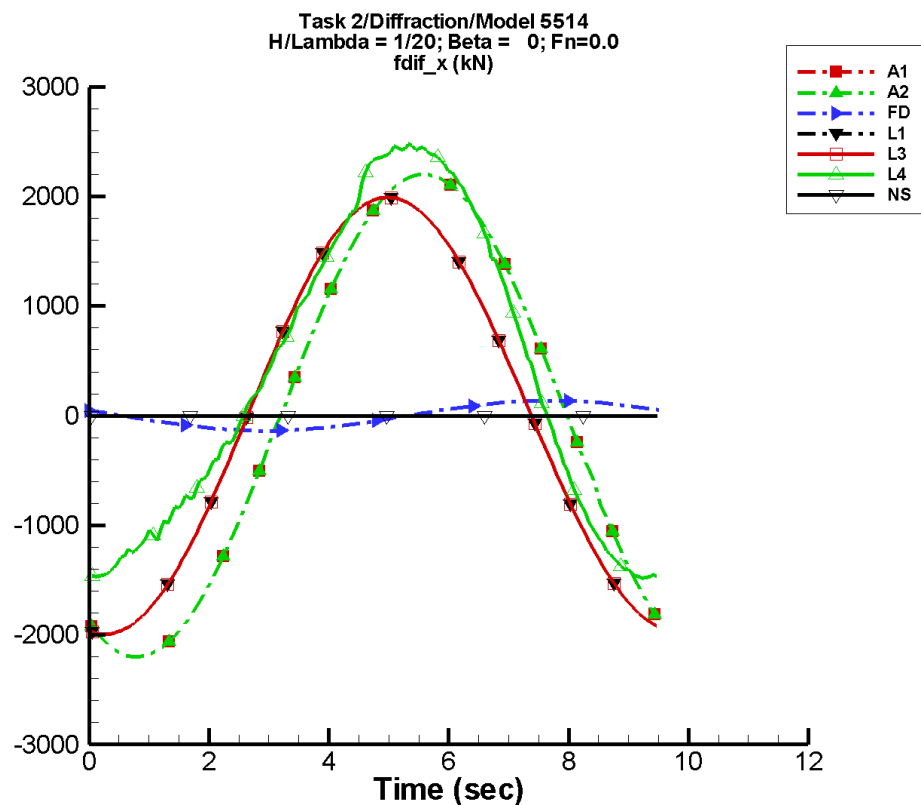
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.930	735.	-126	2.04	-155
A2	0.930	735.	-126	2.04	-155
FD	1.41E-03	45.9	154	1.28E-03	113
L1	-0.261	661.	-103	3.09	128
L3	-0.261	661.	-103	3.09	128
L4	38.3	658.	-105	34.6	7
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1522. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-738.	735.	-730.	727.
A2	-738.	735.	-730.	727.
FD	-45.9	45.9	-45.4	45.4
L1	-666.	662.	-666.	659.
L3	-666.	662.	-666.	659.
L4	-609.	718.	-611.	713.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-762. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

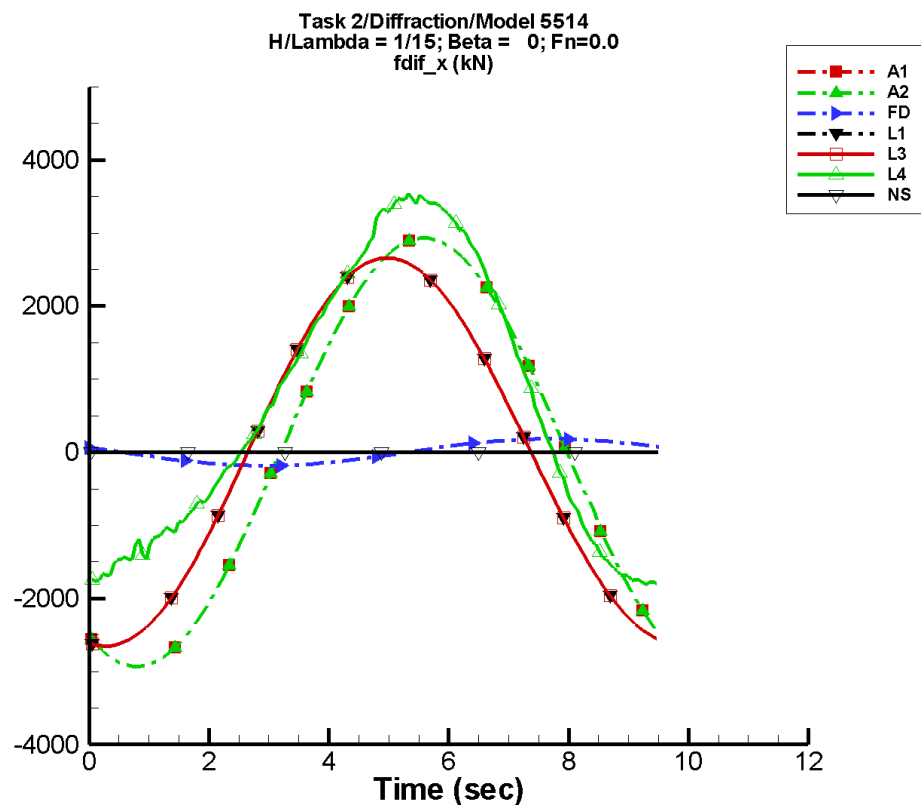
Table H-1523. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.78	2.20E+03	-126	6.11	-155
A2	2.78	2.20E+03	-126	6.11	-155
FD	4.22E-03	138.	154	3.84E-03	113
L1	-5.81	1.98E+03	-103	24.4	119
L3	-5.81	1.98E+03	-103	24.4	119
L4	345.	1.92E+03	-108	301.	0
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1524. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.21E+03	2.20E+03	-2.18E+03	2.18E+03
A2	-2.21E+03	2.20E+03	-2.18E+03	2.18E+03
FD	-138.	138.	-136.	136.
L1	-1.99E+03	1.99E+03	-1.99E+03	1.98E+03
L3	-1.99E+03	1.99E+03	-1.99E+03	1.98E+03
L4	-1.48E+03	2.48E+03	-1.47E+03	2.44E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-763. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

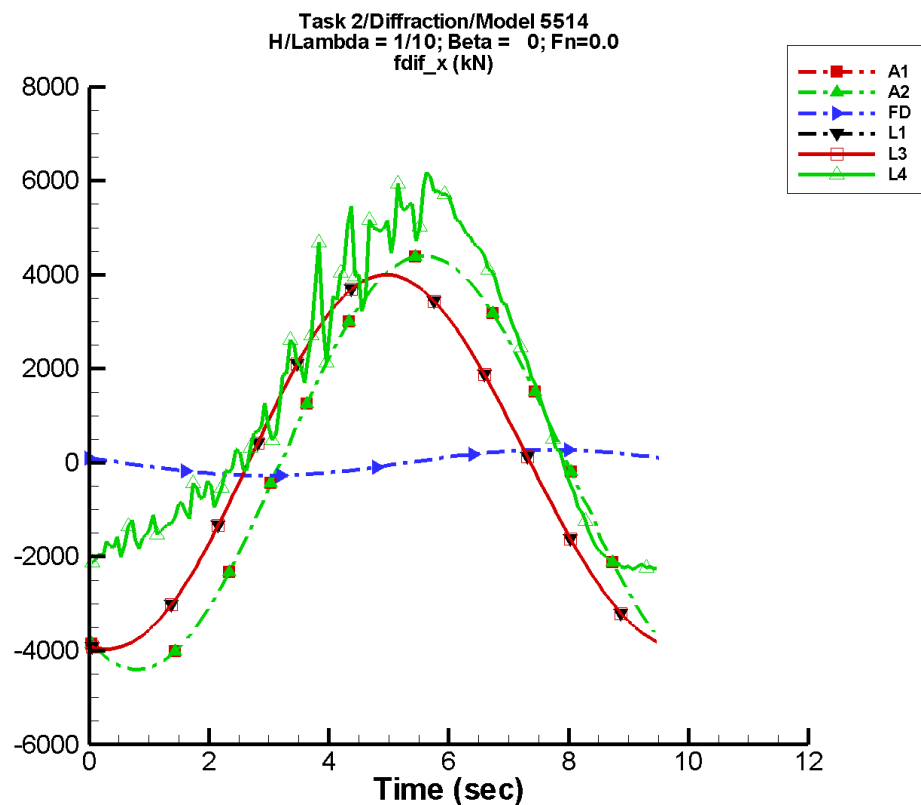
Table H-1525. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.71	2.93E+03	-126	8.14	-155
A2	3.71	2.93E+03	-126	8.14	-155
FD	5.63E-03	183.	154	5.11E-03	113
L1	-11.1	2.64E+03	-103	42.7	118
L3	-11.1	2.64E+03	-103	42.7	118
L4	615.	2.54E+03	-110	471.	-1
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1526. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.94E+03	2.93E+03	-2.91E+03	2.90E+03
A2	-2.94E+03	2.93E+03	-2.91E+03	2.90E+03
FD	-183.	183.	-181.	181.
L1	-2.65E+03	2.66E+03	-2.65E+03	2.65E+03
L3	-2.65E+03	2.66E+03	-2.65E+03	2.65E+03
L4	-1.80E+03	3.54E+03	-1.77E+03	3.47E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-764. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

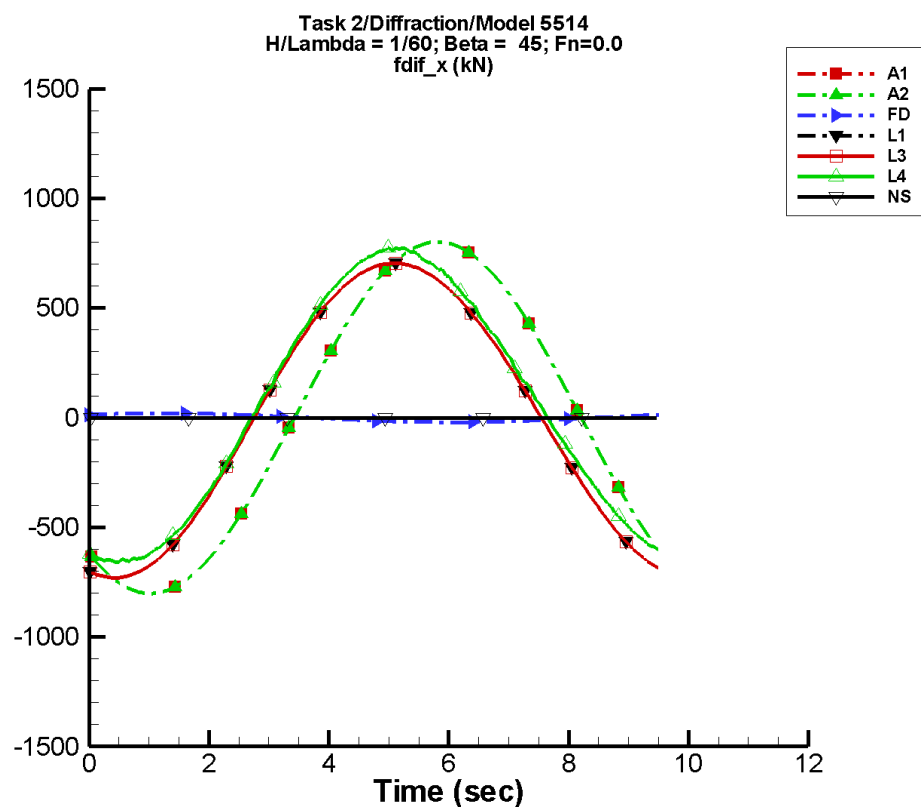
Table H-1527. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.57	4.40E+03	-126	12.2	-155
A2	5.57	4.40E+03	-126	12.2	-155
FD	8.45E-03	275.	154	7.65E-03	113
L1	-26.7	3.96E+03	-103	94.5	117
L3	-26.7	3.96E+03	-103	94.5	117
L4	1.30E+03	3.78E+03	-113	818.	-1
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1528. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.41E+03	4.40E+03	-4.37E+03	4.35E+03
A2	-4.41E+03	4.40E+03	-4.37E+03	4.35E+03
FD	-275.	275.	-272.	272.
L1	-3.97E+03	4.00E+03	-3.97E+03	3.98E+03
L3	-3.97E+03	4.00E+03	-3.97E+03	3.98E+03
L4	-2.26E+03	6.17E+03	-2.23E+03	5.77E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-765. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1529. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

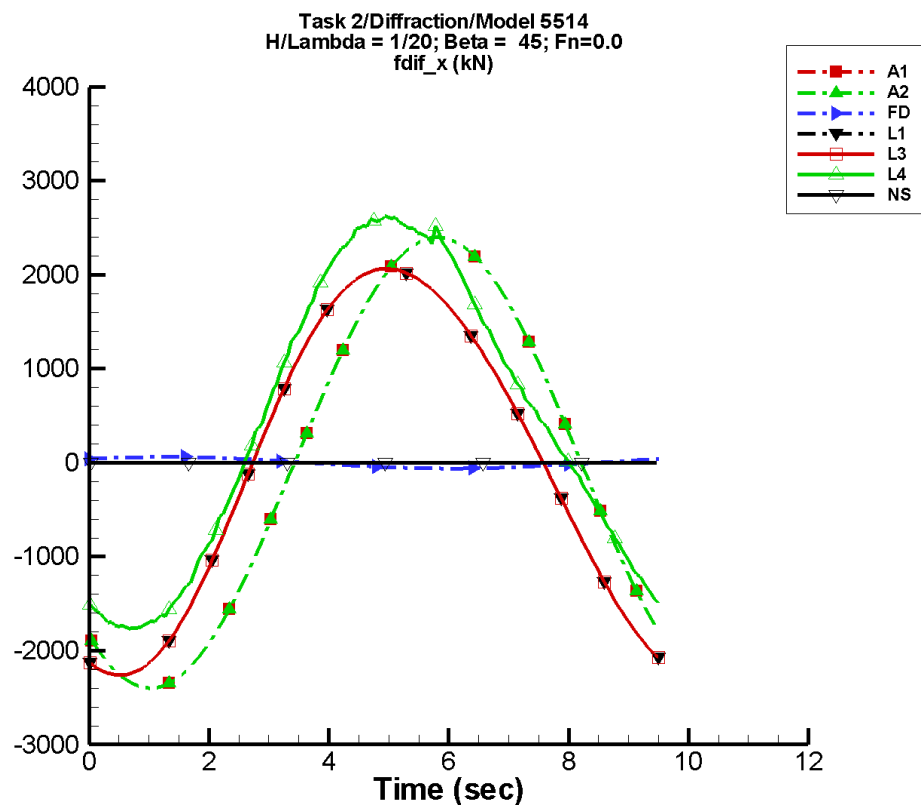
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.588	799.	-134	1.97	-159
A2	0.588	799.	-134	1.97	-159
FD	-5.75E-04	20.5	36	5.97E-04	-107
L1	-2.11	714.	-108	15.9	176
L3	-2.11	714.	-108	15.9	176
L4	45.8	706.	-109	25.7	118
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1530. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-803.	801.	-794.	792.
A2	-803.	801.	-794.	792.
FD	-20.4	20.5	-20.2	20.2
L1	-730.	704.	-727.	701.
L3	-730.	704.	-727.	701.
L4	-658.	776.	-652.	768.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-766. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

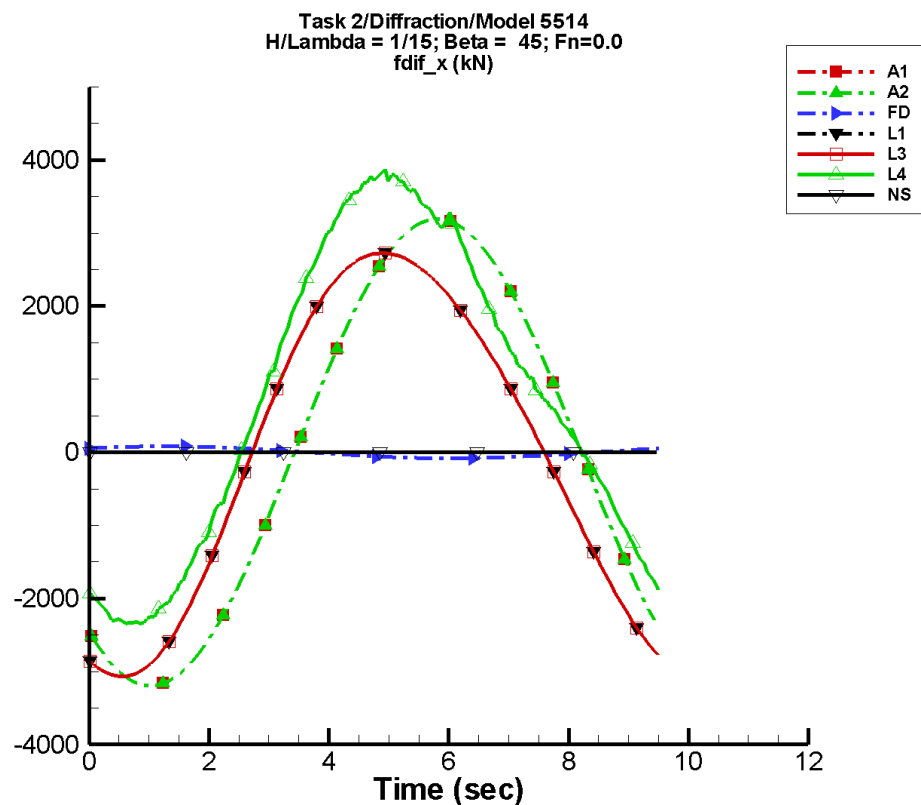
Table H-1531. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.76	2.39E+03	-134	5.90	-159
A2	1.76	2.39E+03	-134	5.90	-159
FD	-1.73E-03	61.4	36	1.79E-03	-107
L1	-18.8	2.14E+03	-108	139.	177
L3	-18.8	2.14E+03	-108	139.	177
L4	417.	2.13E+03	-111	205.	133
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1532. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.40E+03	2.40E+03	-2.38E+03	2.37E+03
A2	-2.40E+03	2.40E+03	-2.38E+03	2.37E+03
FD	-61.3	61.4	-60.7	60.7
L1	-2.26E+03	2.06E+03	-2.25E+03	2.05E+03
L3	-2.26E+03	2.06E+03	-2.25E+03	2.05E+03
L4	-1.77E+03	2.62E+03	-1.75E+03	2.59E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-767. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

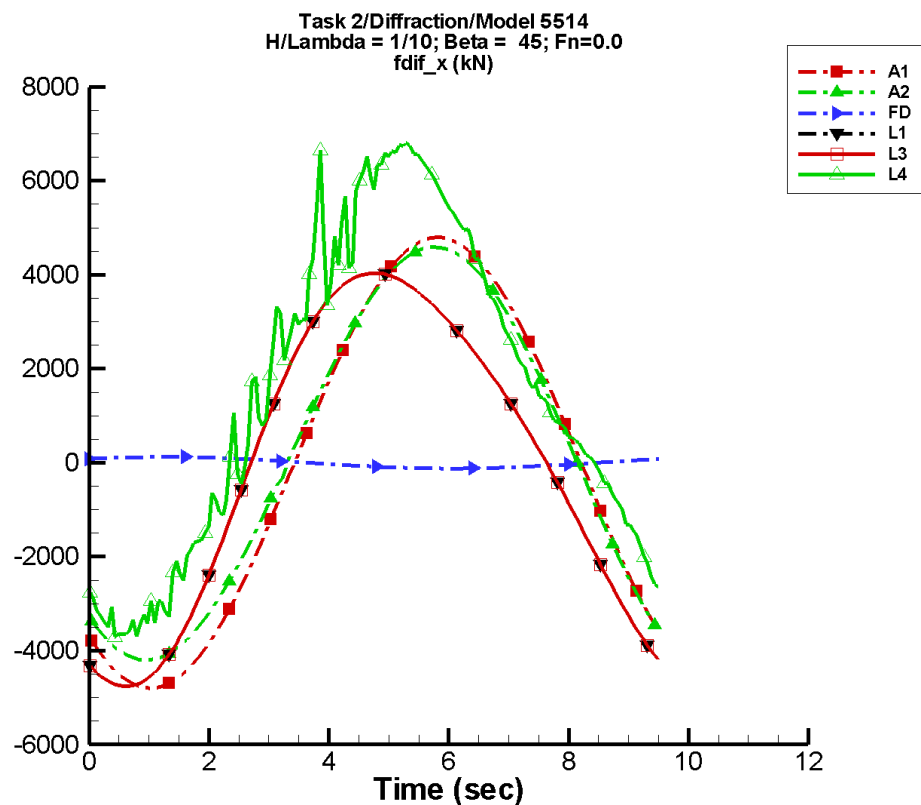
Table H-1533. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.34	3.18E+03	-134	7.85	-159
A2	2.34	3.18E+03	-134	7.85	-159
FD	-2.30E-03	81.8	36	2.39E-03	-107
L1	-33.4	2.86E+03	-108	246.	177
L3	-33.4	2.86E+03	-108	246.	177
L4	726.	2.92E+03	-112	354.	138
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1534. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.20E+03	3.19E+03	-3.16E+03	3.16E+03
A2	-3.20E+03	3.19E+03	-3.16E+03	3.16E+03
FD	-81.8	81.8	-80.9	80.9
L1	-3.07E+03	2.72E+03	-3.05E+03	2.71E+03
L3	-3.07E+03	2.72E+03	-3.05E+03	2.71E+03
L4	-2.34E+03	3.87E+03	-2.33E+03	3.78E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-768. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

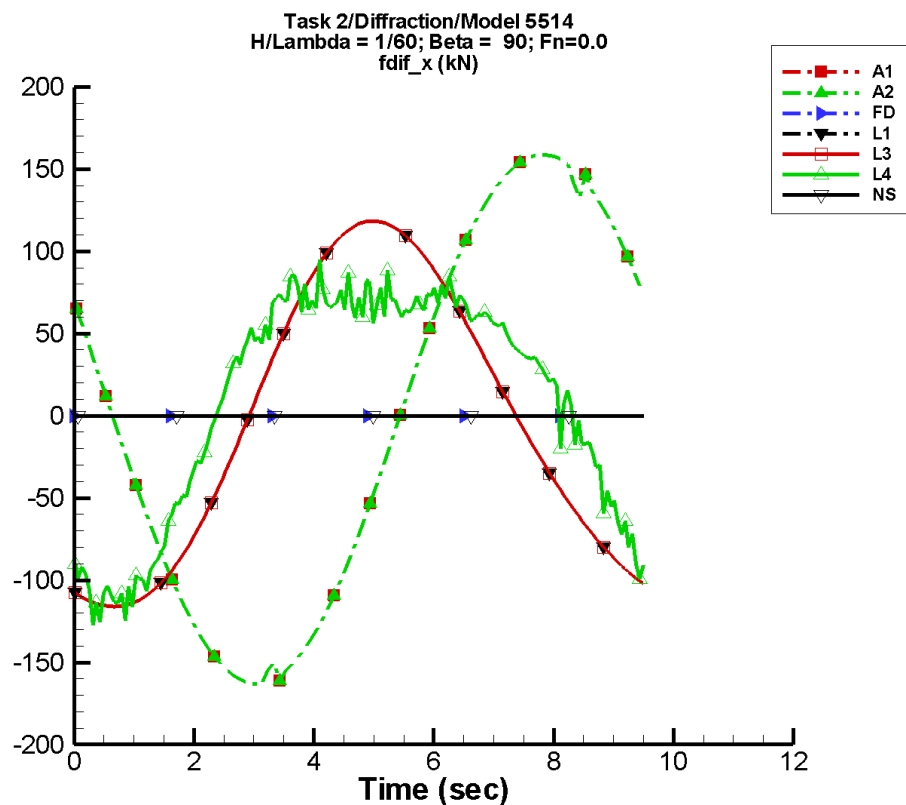
Table H-1535. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.52	4.78E+03	-134	11.8	-159
A2	51.1	4.51E+03	-127	48.8	-8
FD	-3.45E-03	123.	36	3.58E-03	-107
L1	-75.0	4.28E+03	-108	551.	177
L3	-75.0	4.28E+03	-108	551.	177
L4	1.46E+03	4.71E+03	-113	377.	128
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1536. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.80E+03	4.80E+03	-4.75E+03	4.74E+03
A2	-4.66E+03	4.68E+03	-4.61E+03	4.71E+03
FD	-123.	123.	-121.	121.
L1	-4.76E+03	4.04E+03	-4.74E+03	4.02E+03
L3	-4.76E+03	4.04E+03	-4.74E+03	4.02E+03
L4	-3.72E+03	6.80E+03	-3.59E+03	6.68E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-769. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1537. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

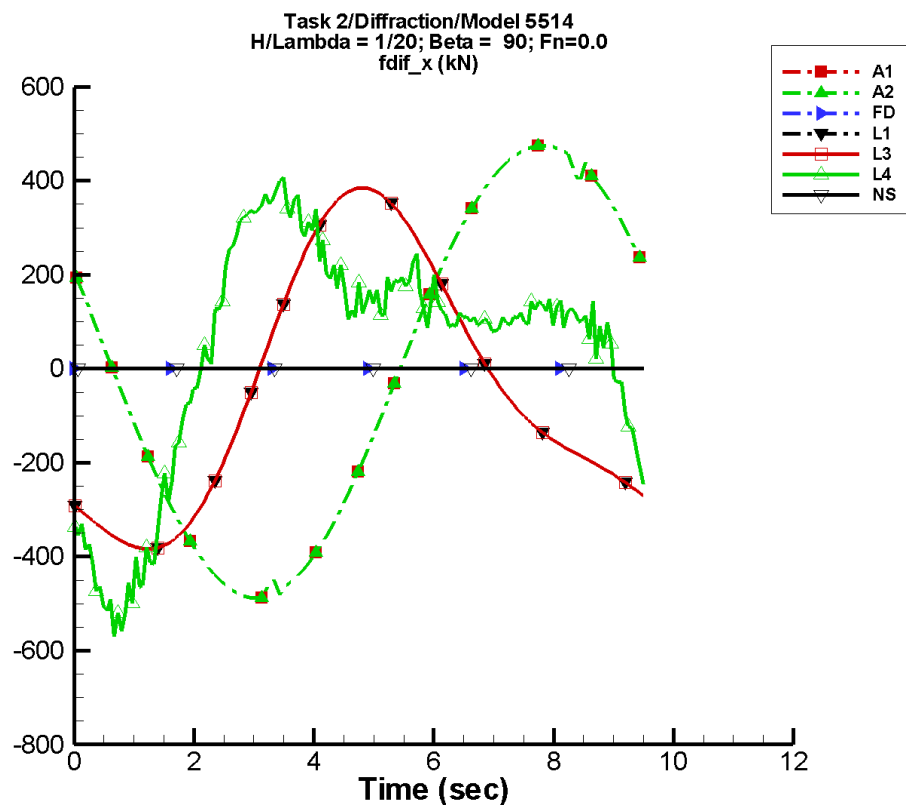
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.39	161.	150	0.828	27
A2	-1.39	161.	150	0.828	27
FD	2.11E-10	6.22E-06	169	1.88E-10	103
L1	-5.21	114.	-108	11.6	105
L3	-5.21	114.	-108	11.6	105
L4	8.57	88.3	-111	30.0	-145
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1538. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-163.	159.	-160.	157.
A2	-163.	159.	-160.	157.
FD	-6.22E-06	6.22E-06	-6.15E-06	6.15E-06
L1	-116.	118.	-116.	118.
L3	-116.	118.	-116.	118.
L4	-127.	95.0	-113.	75.8
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-770. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

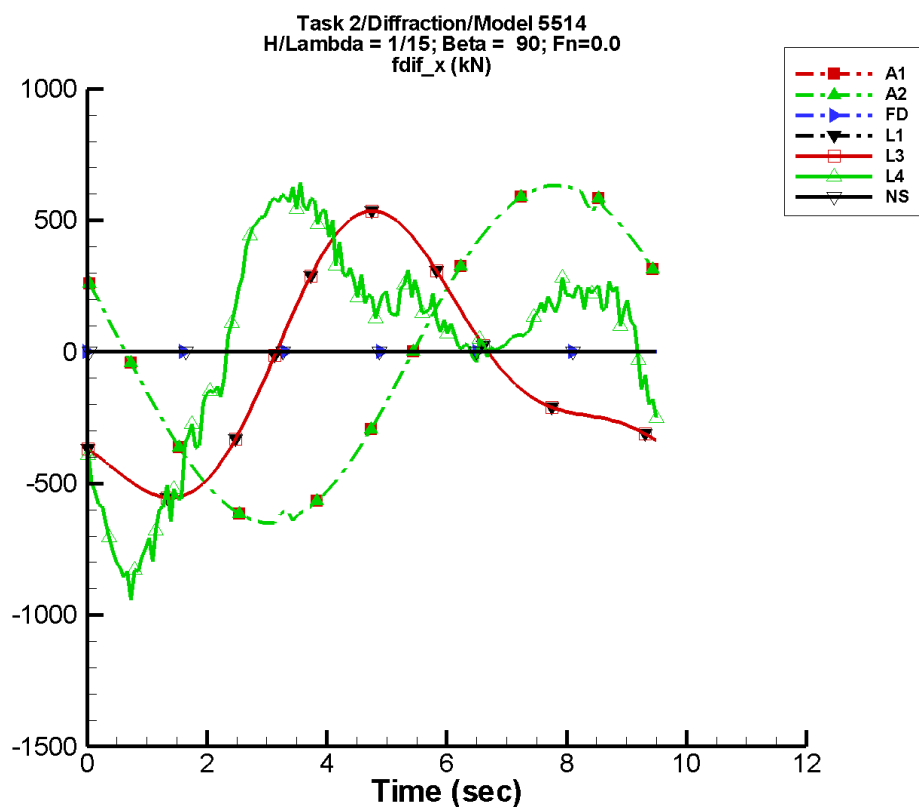
Table H-1539. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.15	482.	150	2.48	27
A2	-4.15	482.	150	2.48	27
FD	6.32E-10	1.87E-05	169	5.62E-10	102
L1	-44.7	341.	-108	101.	104
L3	-44.7	341.	-108	101.	104
L4	33.4	264.	-102	205.	-157
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1540. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-488.	475.	-479.	469.
A2	-488.	475.	-479.	469.
FD	-1.87E-05	1.87E-05	-1.84E-05	1.84E-05
L1	-384.	385.	-382.	382.
L3	-384.	385.	-382.	382.
L4	-570.	407.	-516.	368.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-771. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

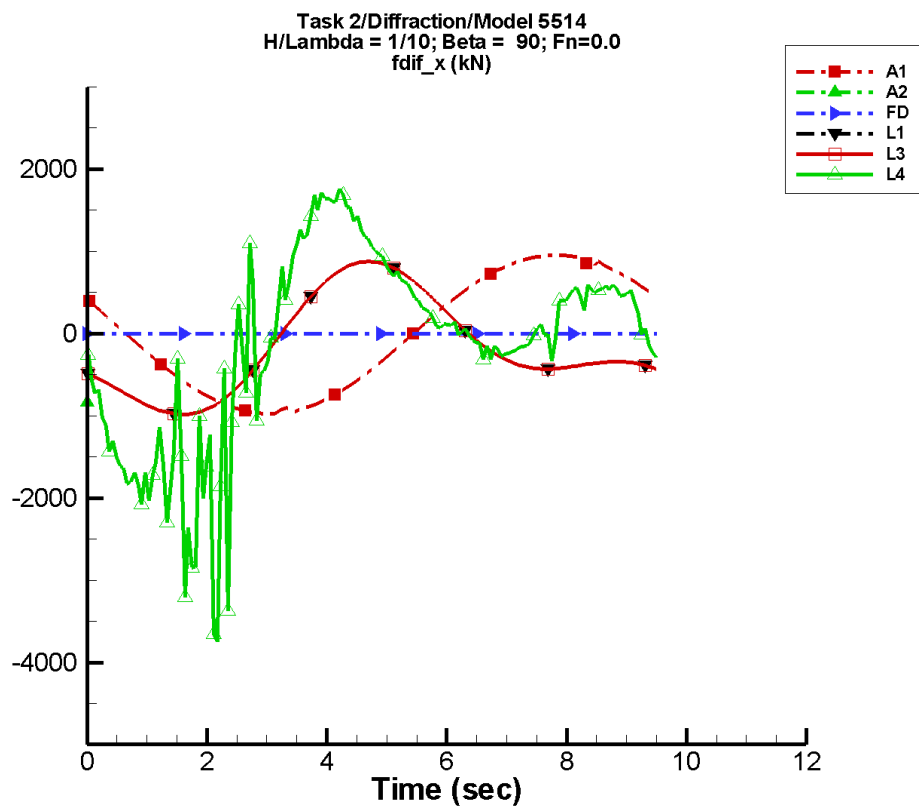
Table H-1541. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-5.53	642.	150	3.30	27
A2	-5.53	642.	150	3.30	27
FD	8.41E-10	2.49E-05	169	7.51E-10	102
L1	-79.0	455.	-108	179.	104
L3	-79.0	455.	-108	179.	104
L4	24.7	373.	-102	364.	-171
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1542. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-650.	633.	-637.	624.
A2	-650.	633.	-637.	624.
FD	-2.49E-05	2.49E-05	-2.46E-05	2.46E-05
L1	-555.	536.	-551.	531.
L3	-555.	536.	-551.	531.
L4	-943.	649.	-837.	591.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-772. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

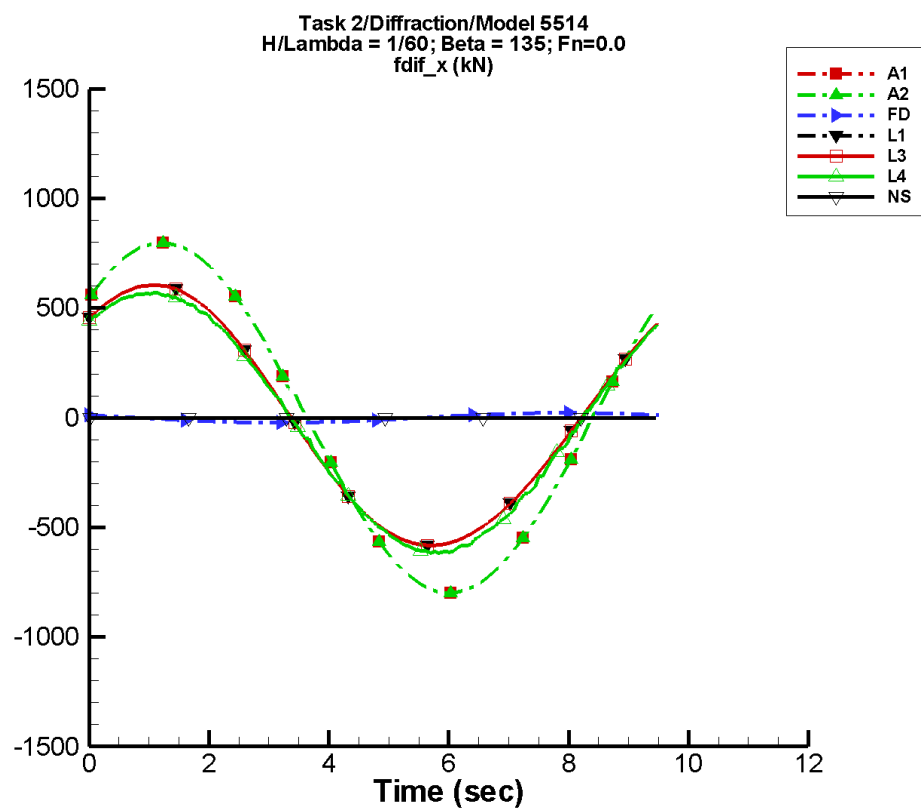
Table H-1543. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.30	965.	150	4.95	27
A2	-1.70E+03	6.76E+03	81	3.15E+03	175
FD	1.26E-09	3.73E-05	169	1.13E-09	103
L1	-177.	682.	-108	402.	104
L3	-177.	682.	-108	402.	104
L4	-113.	1.04E+03	-122	1.07E+03	145
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1544. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-977.	950.	-957.	937.
A2	-837.	-809.	-837.	-809.
FD	-3.73E-05	3.73E-05	-3.69E-05	3.69E-05
L1	-986.	875.	-979.	866.
L3	-986.	875.	-979.	866.
L4	-3.75E+03	1.83E+03	-2.28E+03	1.74E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-773. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1545. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

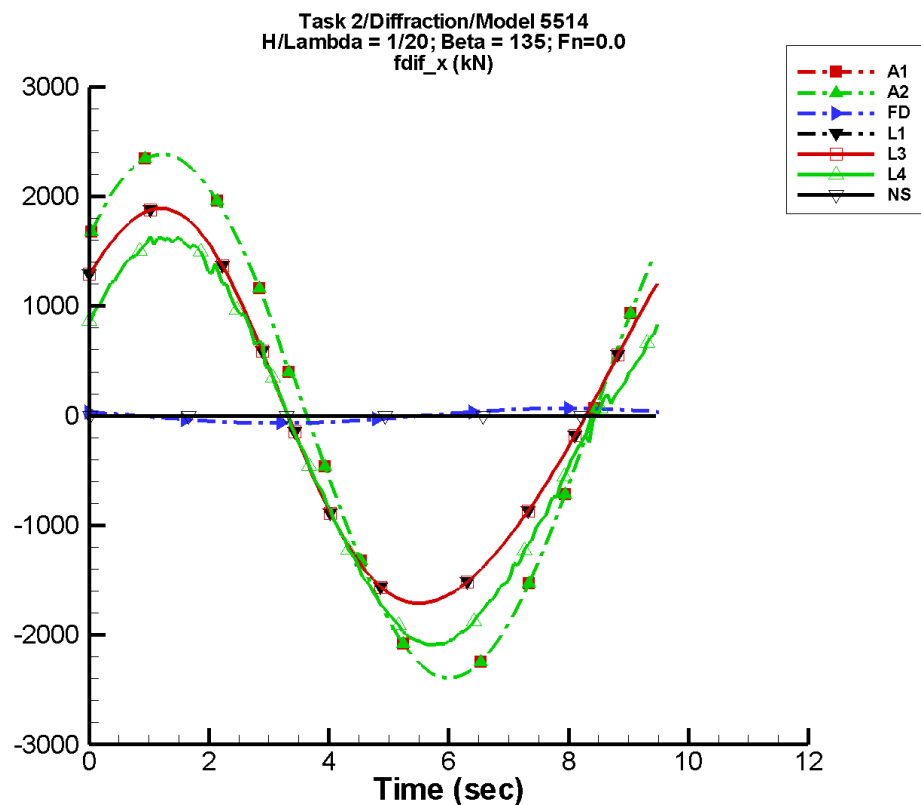
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.04	795.	38	2.77	12
A2	-2.04	795.	38	2.77	12
FD	6.24E-04	22.6	144	5.86E-04	121
L1	-1.22	591.	48	19.0	-47
L3	-1.22	591.	48	19.0	-47
L4	-21.6	590.	47	1.95	-138
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1546. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-800.	800.	-791.	790.
A2	-800.	800.	-791.	790.
FD	-22.6	22.5	-22.3	22.3
L1	-582.	605.	-580.	602.
L3	-582.	605.	-580.	602.
L4	-616.	570.	-612.	565.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-774. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

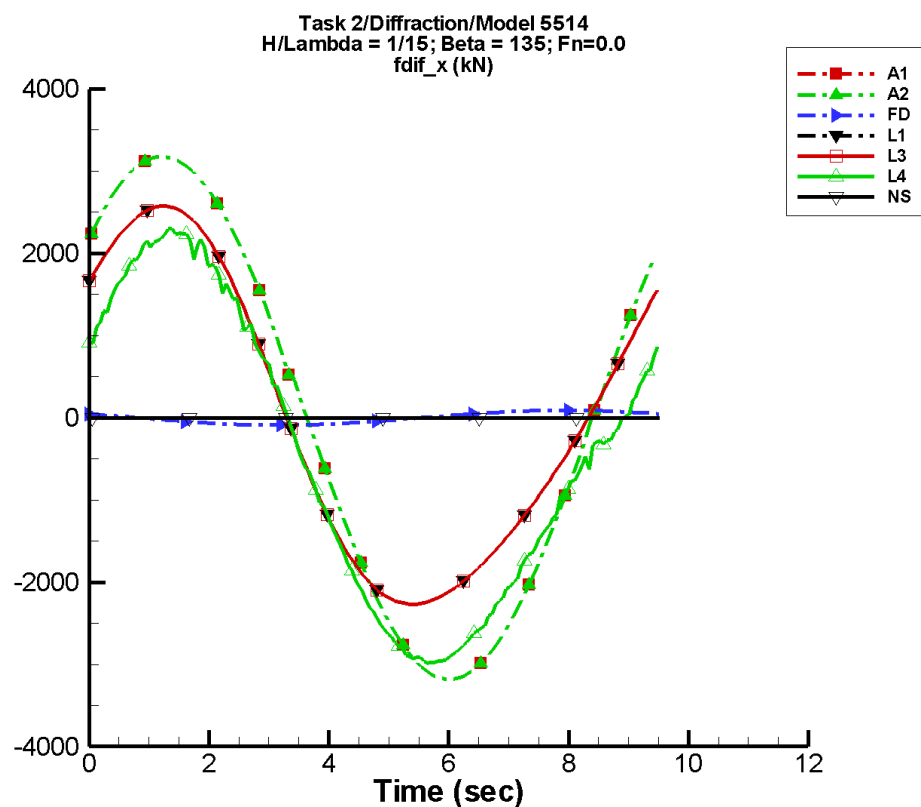
Table H-1547. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.10	2.38E+03	38	8.29	12
A2	-6.10	2.38E+03	38	8.29	12
FD	1.87E-03	67.7	144	1.75E-03	121
L1	-9.54	1.77E+03	48	171.	-48
L3	-9.54	1.77E+03	48	171.	-48
L4	-239.	1.79E+03	43	128.	-90
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1548. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.39E+03	2.39E+03	-2.36E+03	2.36E+03
A2	-2.39E+03	2.39E+03	-2.36E+03	2.36E+03
FD	-67.7	67.6	-67.0	66.9
L1	-1.71E+03	1.89E+03	-1.70E+03	1.88E+03
L3	-1.71E+03	1.89E+03	-1.70E+03	1.88E+03
L4	-2.09E+03	1.64E+03	-2.08E+03	1.61E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-775. Time history of  $F_x^{dif}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

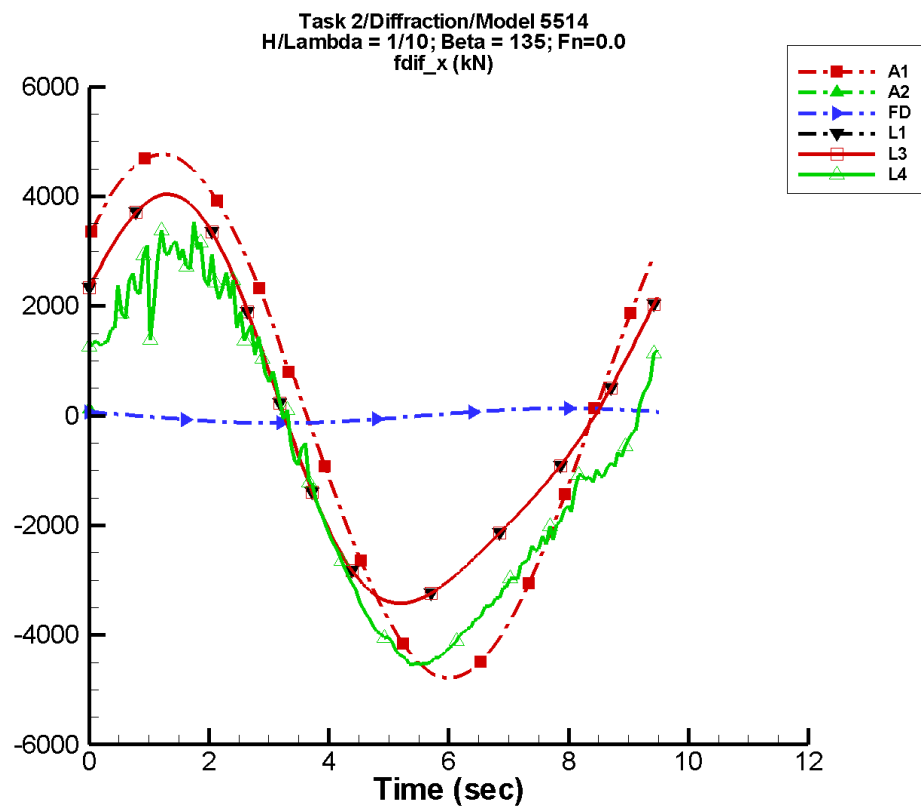
Table H-1549. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.12	3.17E+03	38	11.0	12
A2	-8.12	3.17E+03	38	11.0	12
FD	2.50E-03	90.2	144	2.34E-03	121
L1	-16.6	2.36E+03	48	303.	-48
L3	-16.6	2.36E+03	48	303.	-48
L4	-449.	2.47E+03	41	273.	-77
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1550. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.18E+03	3.19E+03	-3.15E+03	3.15E+03
A2	-3.18E+03	3.19E+03	-3.15E+03	3.15E+03
FD	-90.2	90.2	-89.3	89.2
L1	-2.27E+03	2.58E+03	-2.26E+03	2.56E+03
L3	-2.27E+03	2.58E+03	-2.26E+03	2.56E+03
L4	-2.98E+03	2.32E+03	-2.96E+03	2.25E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-776. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

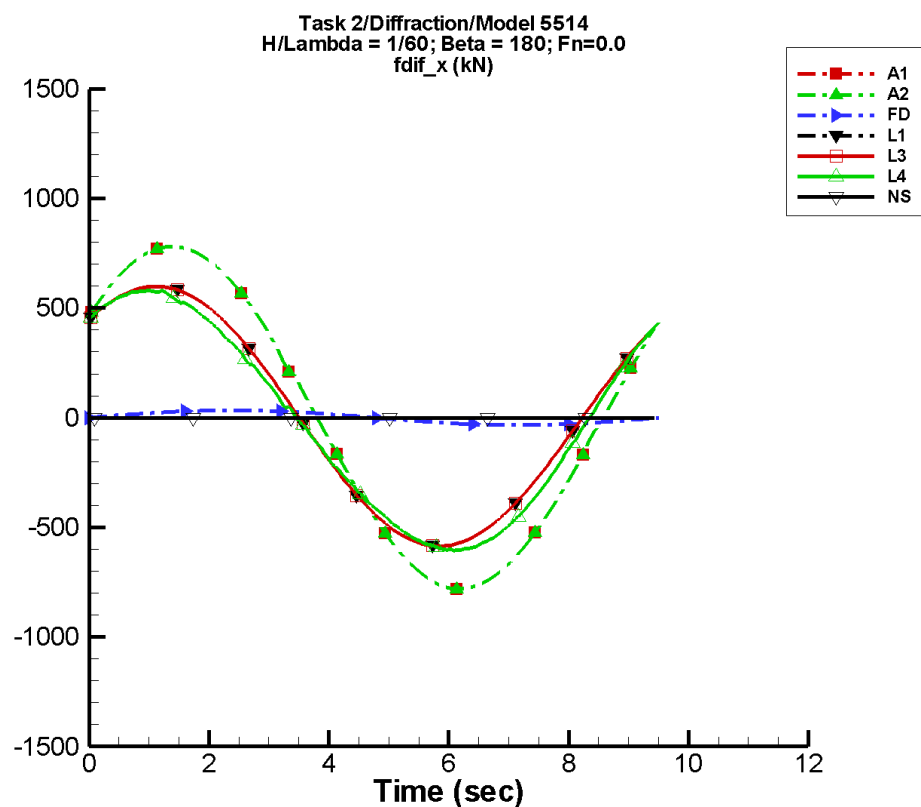
Table H-1551. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-12.2	4.76E+03	38	16.6	12
A2	1.02E+03	4.00E+03	-137	3.62E+03	70
FD	3.74E-03	135.	144	3.51E-03	121
L1	-36.7	3.55E+03	48	683.	-48
L3	-36.7	3.55E+03	48	683.	-48
L4	-889.	3.52E+03	39	572.	-78
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1552. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.78E+03	4.79E+03	-4.73E+03	4.72E+03
A2	-81.5	113.	-81.5	113.
FD	-135.	135.	-134.	134.
L1	-3.42E+03	4.04E+03	-3.41E+03	4.02E+03
L3	-3.42E+03	4.04E+03	-3.41E+03	4.02E+03
L4	-4.54E+03	3.53E+03	-4.51E+03	3.07E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-777. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1553. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

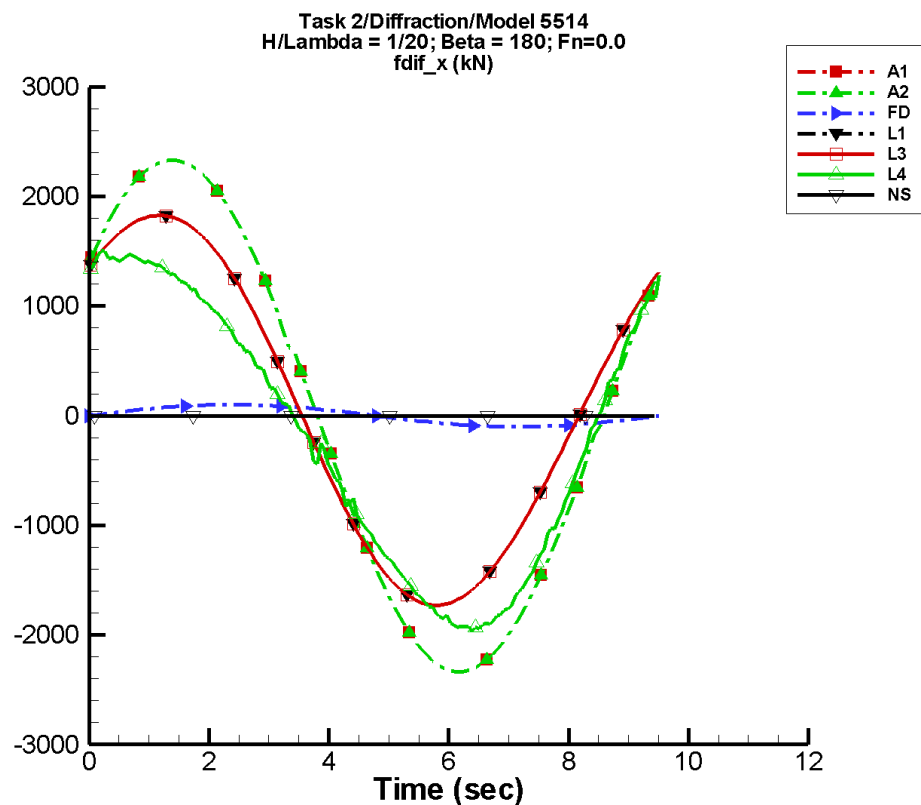
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.57	777.	32	2.31	8
A2	-1.57	777.	32	2.31	8
FD	-1.16E-03	33.8	-6	1.04E-03	-81
L1	7.01	591.	45	5.67	-108
L3	7.01	591.	45	5.67	-108
L4	-19.5	584.	44	37.1	78
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1554. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-781.	782.	-772.	772.
A2	-781.	782.	-772.	772.
FD	-33.8	33.8	-33.4	33.4
L1	-586.	598.	-583.	596.
L3	-586.	598.	-583.	596.
L4	-605.	580.	-601.	577.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-778. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

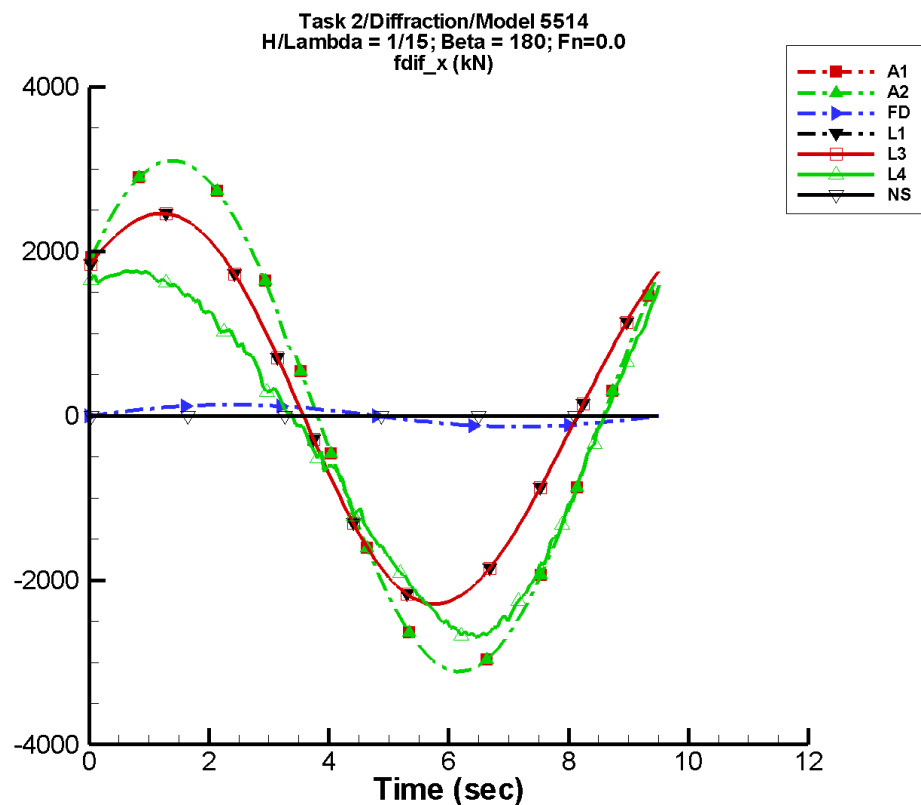
Table H-1555. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.70	2.32E+03	32	6.91	8
A2	-4.70	2.32E+03	32	6.91	8
FD	-3.48E-03	101.	-6	3.11E-03	-81
L1	64.8	1.77E+03	45	51.8	-112
L3	64.8	1.77E+03	45	51.8	-112
L4	-198.	1.65E+03	41	255.	92
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1556. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.34E+03	2.34E+03	-2.31E+03	2.31E+03
A2	-2.34E+03	2.34E+03	-2.31E+03	2.31E+03
FD	-101.	101.	-100.	100.
L1	-1.73E+03	1.83E+03	-1.72E+03	1.82E+03
L3	-1.73E+03	1.83E+03	-1.72E+03	1.82E+03
L4	-1.96E+03	1.50E+03	-1.93E+03	1.45E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-779. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

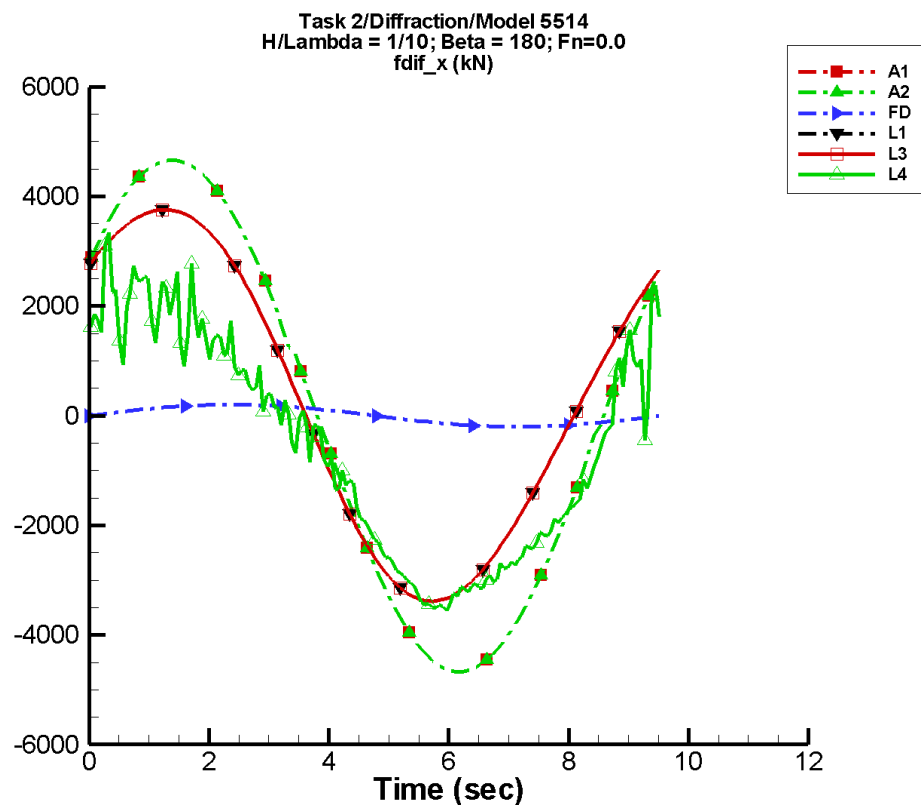
Table H-1557. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.25	3.10E+03	32	9.20	8
A2	-6.25	3.10E+03	32	9.20	8
FD	-4.65E-03	135.	-6	4.16E-03	-81
L1	116.	2.36E+03	45	92.3	-112
L3	116.	2.36E+03	45	92.3	-112
L4	-357.	2.15E+03	38	342.	92
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1558. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.11E+03	3.12E+03	-3.08E+03	3.07E+03
A2	-3.11E+03	3.12E+03	-3.08E+03	3.07E+03
FD	-135.	135.	-134.	134.
L1	-2.29E+03	2.46E+03	-2.28E+03	2.45E+03
L3	-2.29E+03	2.46E+03	-2.28E+03	2.45E+03
L4	-2.69E+03	1.77E+03	-2.66E+03	1.75E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-780. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

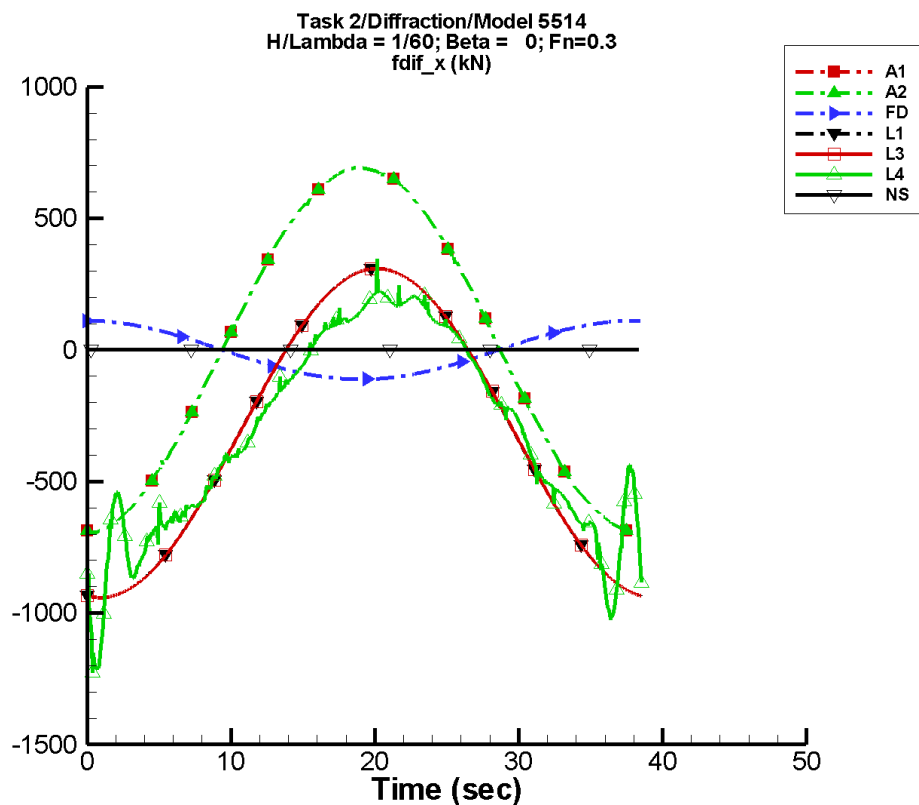
Table H-1559. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.39	4.65E+03	32	13.8	8
A2	-9.39	4.65E+03	32	13.8	8
FD	-6.95E-03	203.	-6	6.24E-03	-81
L1	261.	3.55E+03	45	208.	-113
L3	261.	3.55E+03	45	208.	-113
L4	-565.	2.73E+03	39	323.	84
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1560. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.67E+03	4.68E+03	-4.62E+03	4.62E+03
A2	-4.67E+03	4.68E+03	-4.62E+03	4.62E+03
FD	-203.	203.	-200.	200.
L1	-3.38E+03	3.76E+03	-3.37E+03	3.75E+03
L3	-3.38E+03	3.76E+03	-3.37E+03	3.75E+03
L4	-3.55E+03	3.40E+03	-3.46E+03	2.26E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-781. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1561. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

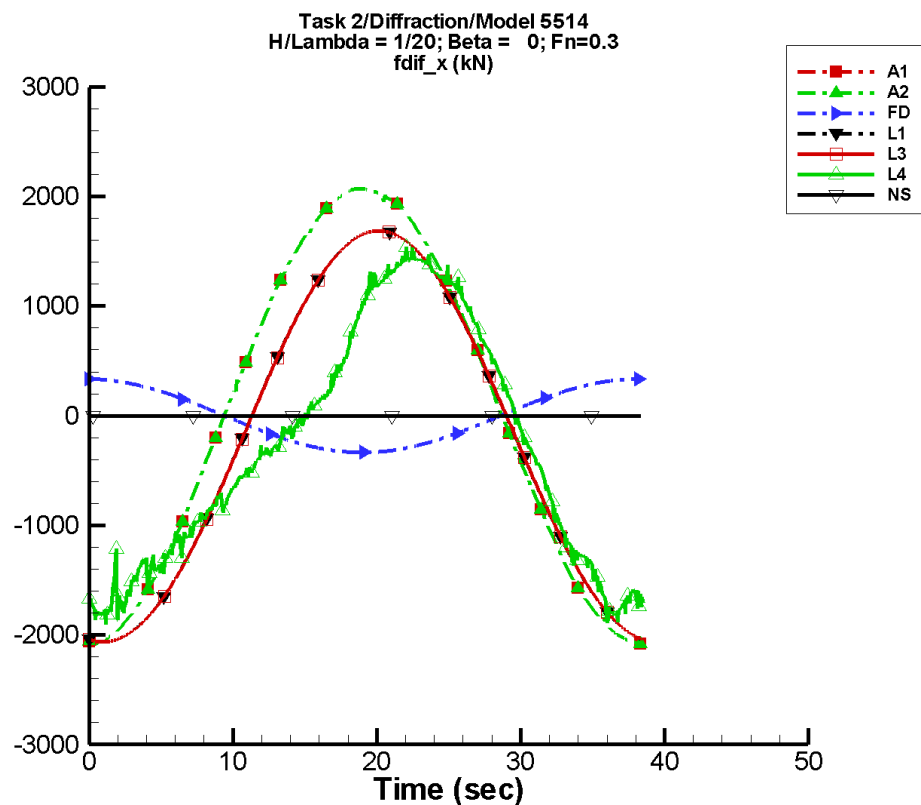
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.167	693.	-83	2.83	-129
A2	-0.167	693.	-83	2.83	-129
FD	0.247	112.	100	0.187	-66
L1	-320.	626.	-95	3.67	87
L3	-320.	626.	-96	3.59	87
L4	-324.	508.	-99	35.1	6
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1562. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-700.	692.	-696.	692.
A2	-700.	692.	-696.	692.
FD	-112.	112.	-112.	112.
L1	-941.	309.	-941.	309.
L3	-941.	309.	-941.	309.
L4	-1.23E+03	345.	-1.21E+03	236.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-782. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

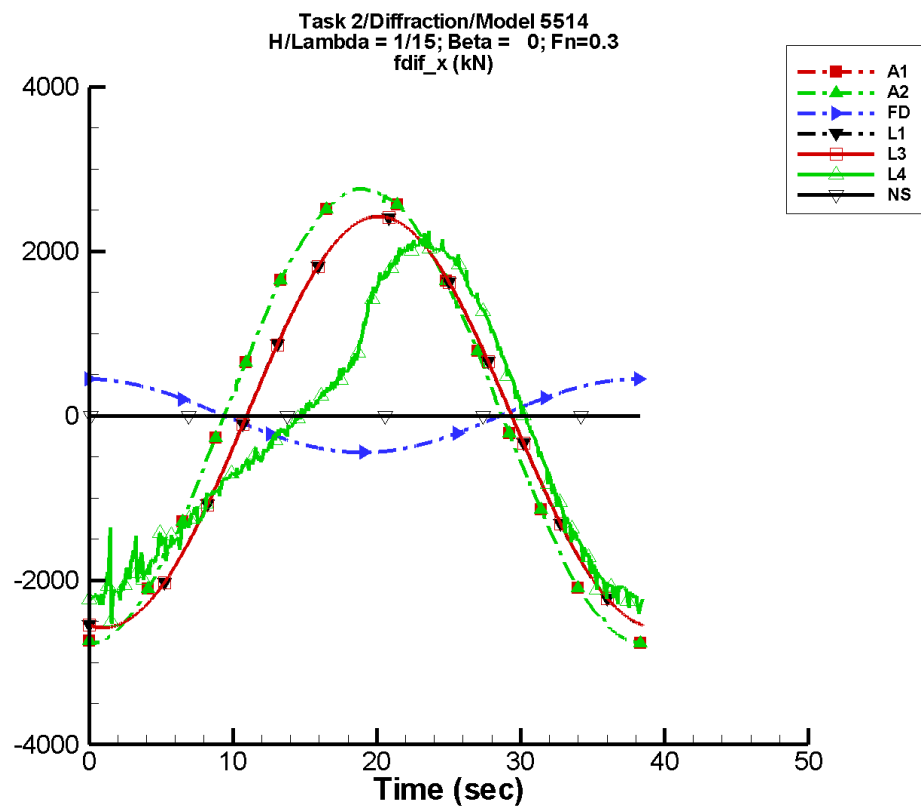
Table H-1563. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.500	2.07E+03	-83	8.46	-129
A2	-0.500	2.07E+03	-83	8.46	-129
FD	0.742	336.	100	0.560	-66
L1	-217.	1.88E+03	-95	28.3	89
L3	-217.	1.88E+03	-96	28.1	88
L4	-314.	1.46E+03	-108	347.	-9
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1564. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.09E+03	2.07E+03	-2.08E+03	2.07E+03
A2	-2.09E+03	2.07E+03	-2.08E+03	2.07E+03
FD	-335.	335.	-335.	335.
L1	-2.06E+03	1.69E+03	-2.06E+03	1.69E+03
L3	-2.06E+03	1.69E+03	-2.06E+03	1.69E+03
L4	-1.95E+03	1.55E+03	-1.81E+03	1.45E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-783. Time history of  $F_x^{dif}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

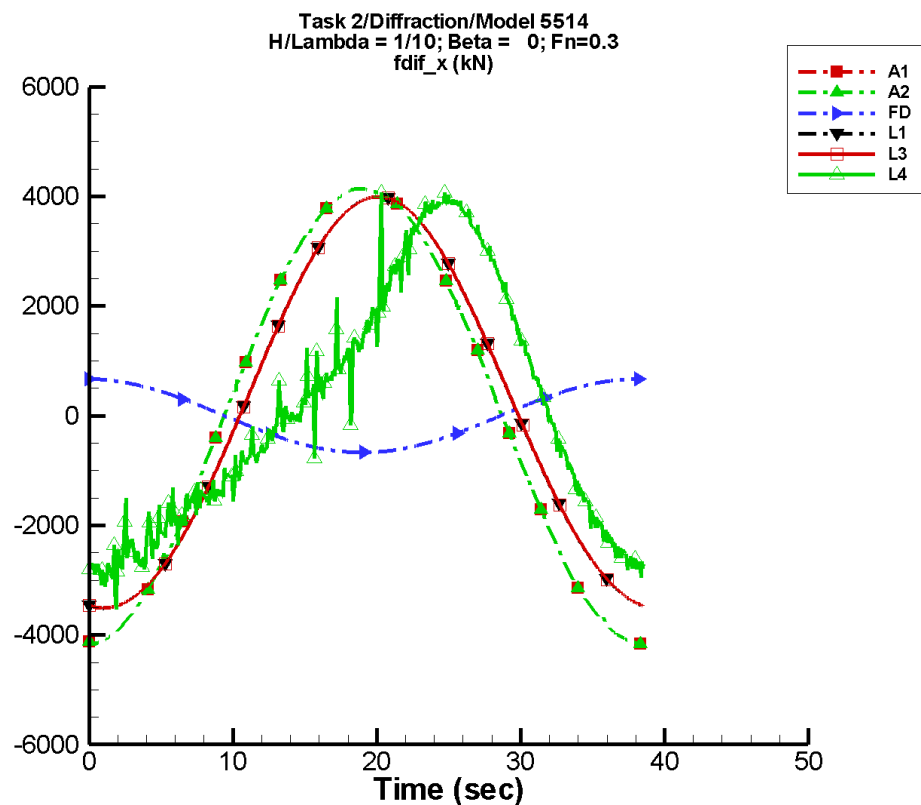
Table H-1565. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-0.666	2.76E+03	-83	11.3	-129
A2	-0.666	2.76E+03	-83	11.3	-129
FD	0.989	448.	100	0.747	-66
L1	-126.	2.50E+03	-95	49.3	89
L3	-126.	2.50E+03	-96	49.0	89
L4	-288.	1.92E+03	-111	543.	-18
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1566. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.79E+03	2.76E+03	-2.77E+03	2.76E+03
A2	-2.79E+03	2.76E+03	-2.77E+03	2.76E+03
FD	-447.	447.	-447.	447.
L1	-2.58E+03	2.42E+03	-2.58E+03	2.42E+03
L3	-2.58E+03	2.42E+03	-2.58E+03	2.42E+03
L4	-2.53E+03	2.24E+03	-2.29E+03	2.10E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-784. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

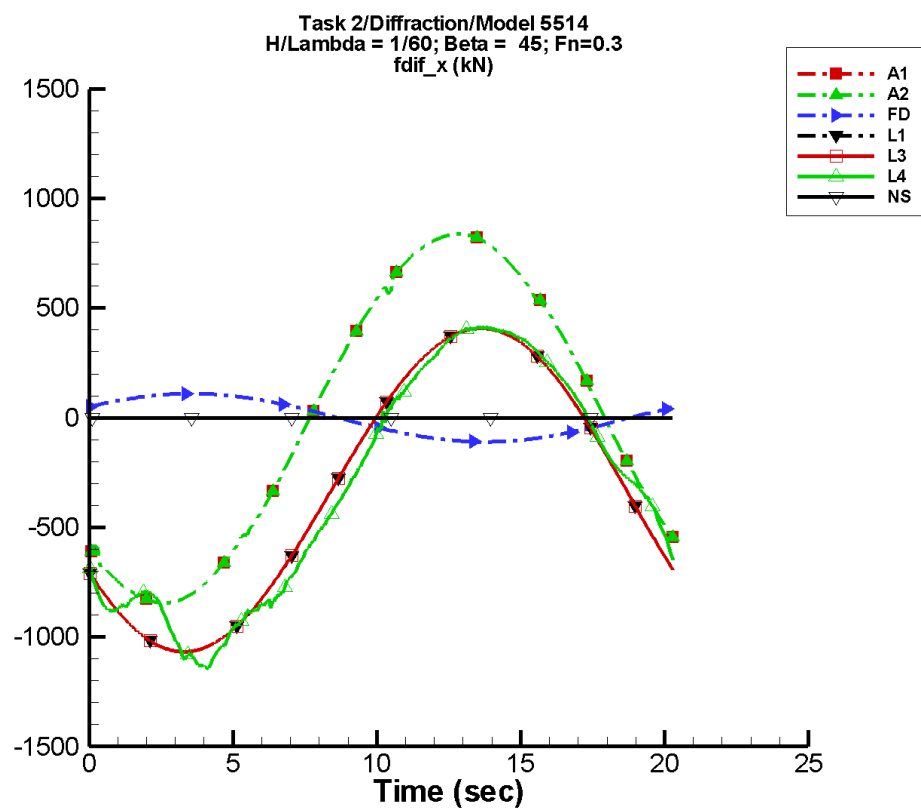
Table H-1567. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.00	4.14E+03	-83	16.9	-129
A2	-1.00	4.14E+03	-83	16.9	-129
FD	1.48	672.	100	1.12	-66
L1	134.	3.75E+03	-95	109.	89
L3	135.	3.75E+03	-96	108.	89
L4	82.7	2.90E+03	-122	880.	-34
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1568. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.19E+03	4.14E+03	-4.16E+03	4.14E+03
A2	-4.19E+03	4.14E+03	-4.16E+03	4.14E+03
FD	-671.	671.	-670.	670.
L1	-3.51E+03	3.99E+03	-3.51E+03	3.99E+03
L3	-3.51E+03	3.99E+03	-3.51E+03	3.99E+03
L4	-3.60E+03	4.07E+03	-2.93E+03	3.94E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-785. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1569. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

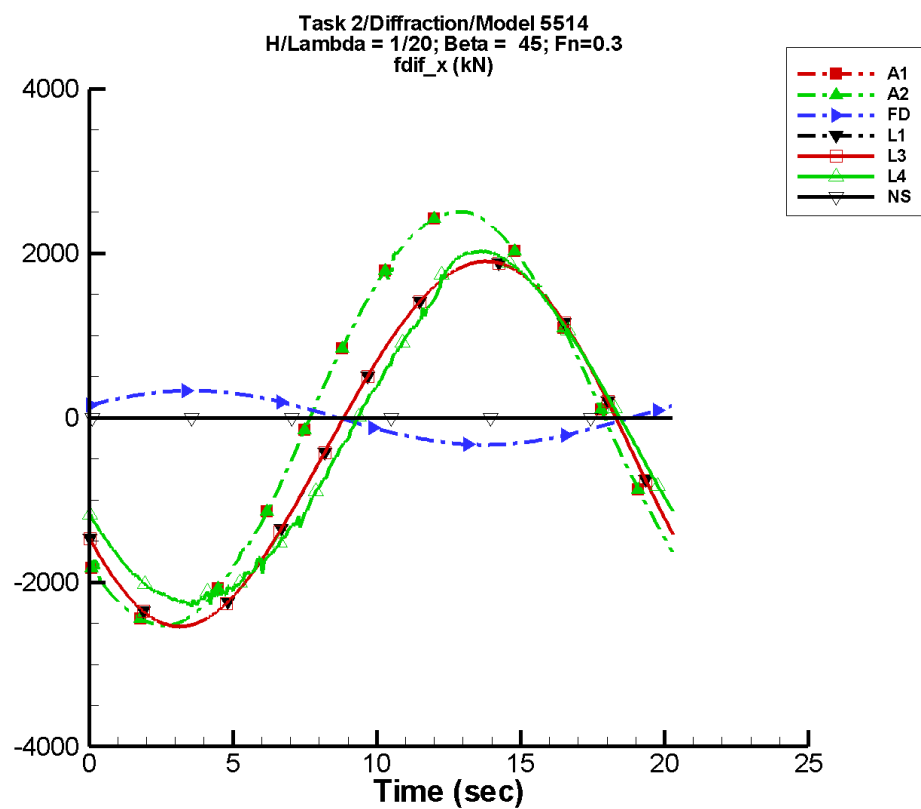
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.18	832.	-145	4.73	159
A2	5.18	832.	-145	4.73	159
FD	-0.128	110.	15	0.170	-21
L1	-327.	738.	-153	9.57	-150
L3	-327.	738.	-153	9.54	-150
L4	-331.	723.	-159	24.5	-24
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1570. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-845.	838.	-842.	835.
A2	-845.	838.	-842.	835.
FD	-110.	110.	-110.	110.
L1	-1.07E+03	408.	-1.07E+03	407.
L3	-1.07E+03	408.	-1.07E+03	407.
L4	-1.15E+03	413.	-1.14E+03	410.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-786. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

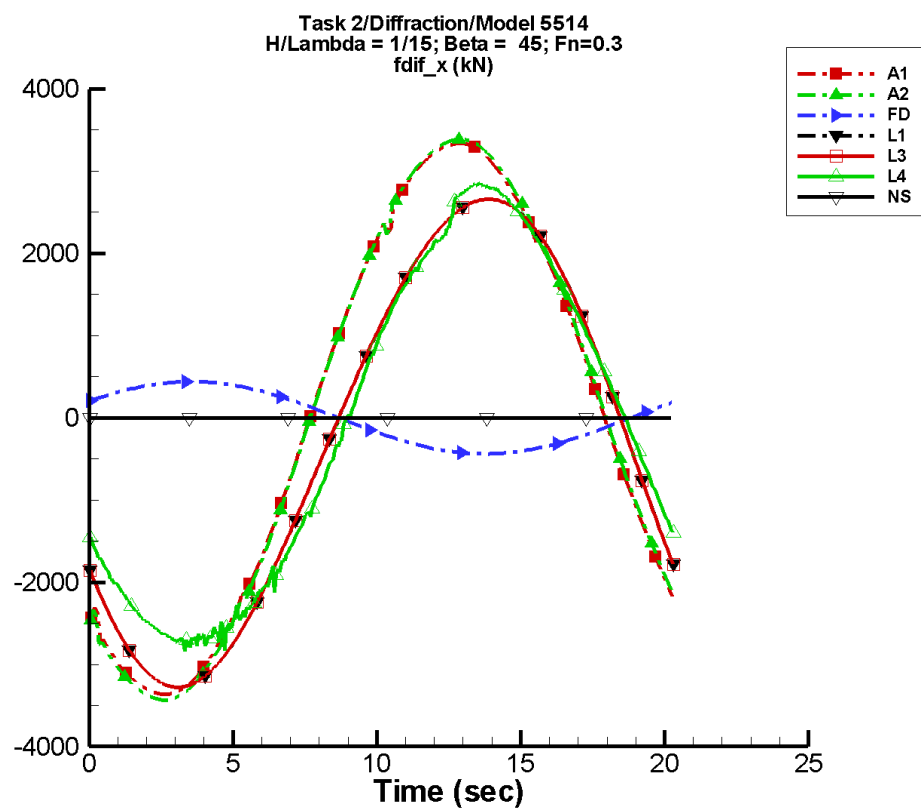
Table H-1571. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	15.5	2.49E+03	-145	14.1	159
A2	15.5	2.49E+03	-145	14.1	159
FD	-0.385	330.	15	0.509	-21
L1	-285.	2.22E+03	-153	87.4	-151
L3	-285.	2.22E+03	-153	87.3	-151
L4	-251.	2.08E+03	-159	117.	-57
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1572. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.53E+03	2.51E+03	-2.52E+03	2.50E+03
A2	-2.53E+03	2.51E+03	-2.52E+03	2.50E+03
FD	-330.	330.	-329.	329.
L1	-2.55E+03	1.90E+03	-2.54E+03	1.90E+03
L3	-2.55E+03	1.90E+03	-2.54E+03	1.90E+03
L4	-2.31E+03	2.03E+03	-2.26E+03	2.02E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-787. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

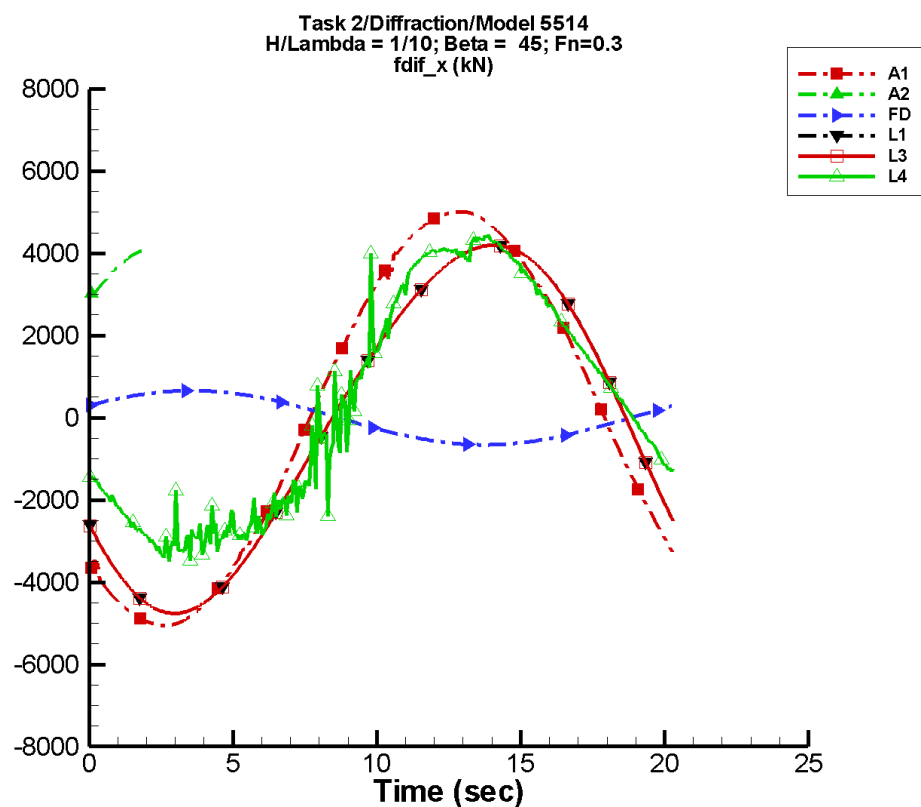
Table H-1573. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	20.7	3.31E+03	-145	18.8	159
A2	-11.3	3.30E+03	-142	31.4	170
FD	-0.514	439.	15	0.678	-21
L1	-248.	2.96E+03	-153	155.	-151
L3	-248.	2.96E+03	-153	155.	-151
L4	-144.	2.73E+03	-157	142.	-45
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1574. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.36E+03	3.34E+03	-3.35E+03	3.33E+03
A2	-3.43E+03	3.39E+03	-3.42E+03	3.38E+03
FD	-440.	440.	-438.	438.
L1	-3.28E+03	2.66E+03	-3.28E+03	2.66E+03
L3	-3.28E+03	2.66E+03	-3.28E+03	2.66E+03
L4	-2.90E+03	2.85E+03	-2.75E+03	2.83E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-788. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

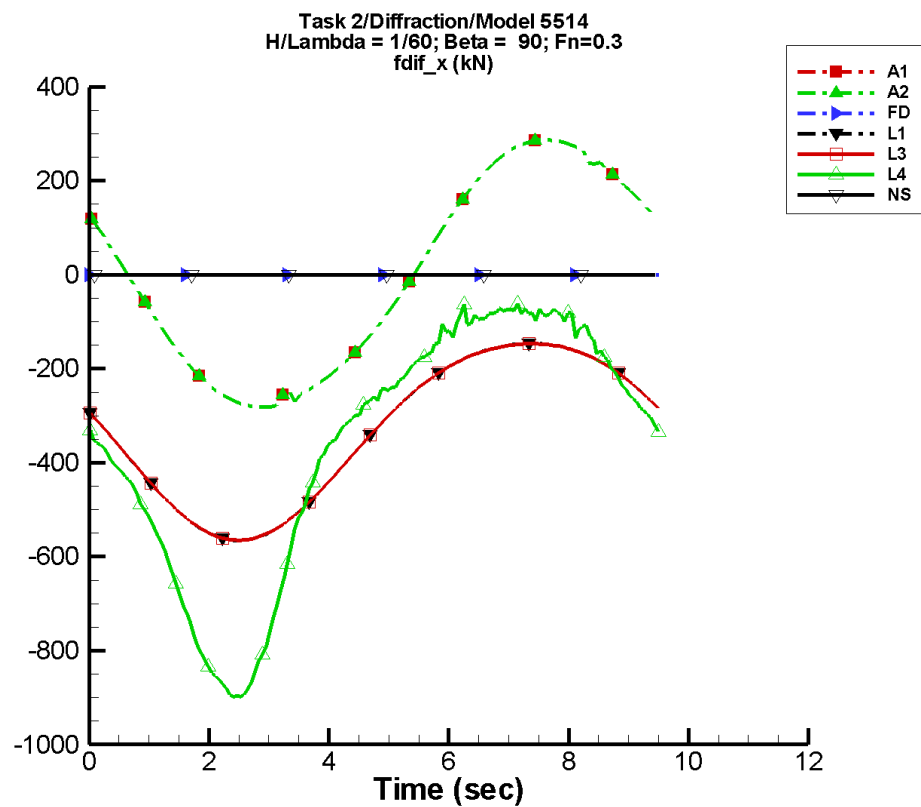
Table H-1575. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	31.0	4.98E+03	-145	28.3	159
A2	4.50E+03	4.27E+03	-52	1.76E+03	81
FD	-0.771	659.	15	1.02	-21
L1	-143.	4.44E+03	-153	350.	-151
L3	-143.	4.44E+03	-153	350.	-151
L4	285.	3.70E+03	-155	403.	-9
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1576. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.05E+03	5.01E+03	-5.04E+03	5.00E+03
A2	-586.	4.12E+03	-572.	4.16E+03
FD	-659.	659.	-658.	658.
L1	-4.77E+03	4.20E+03	-4.76E+03	4.19E+03
L3	-4.77E+03	4.20E+03	-4.76E+03	4.19E+03
L4	-3.49E+03	4.45E+03	-3.24E+03	4.38E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-789. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1577. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

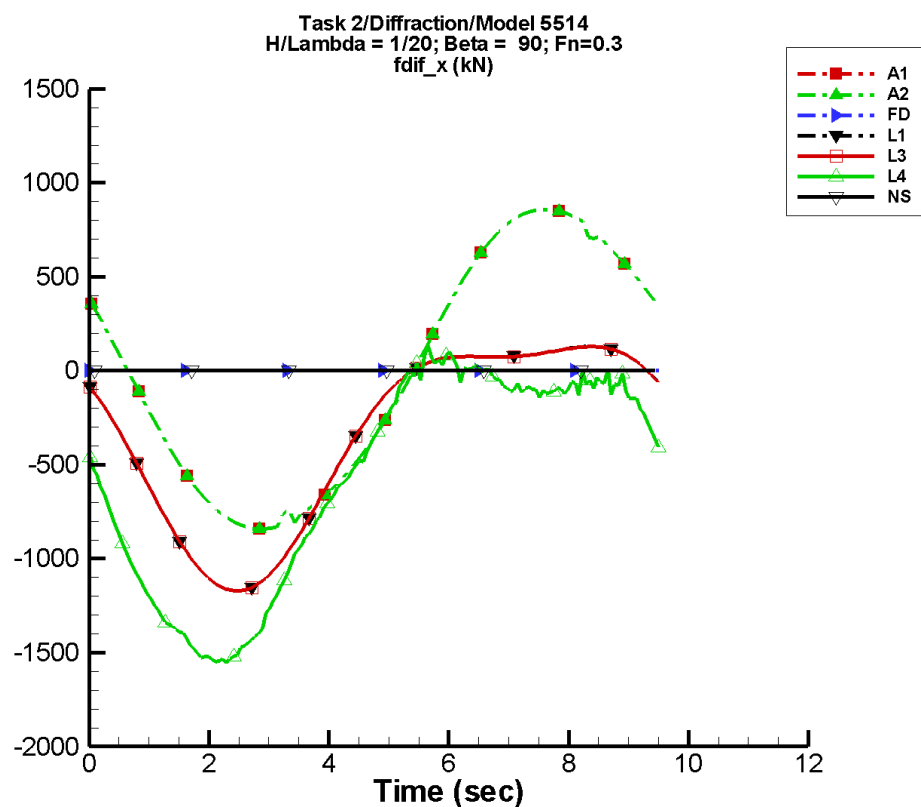
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	0.572	285.	153	0.428	-90
A2	0.572	285.	153	0.428	-90
FD	1.84E-10	8.14E-06	134	1.99E-10	132
L1	-333.	209.	171	22.5	80
L3	-333.	209.	171	22.5	80
L4	-359.	352.	-179	98.8	94
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1578. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-282.	287.	-277.	284.
A2	-282.	287.	-277.	284.
FD	-8.14E-06	8.14E-06	-8.04E-06	8.05E-06
L1	-565.	-146.	-564.	-146.
L3	-565.	-146.	-564.	-147.
L4	-900.	-59.1	-890.	-72.7
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-790. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

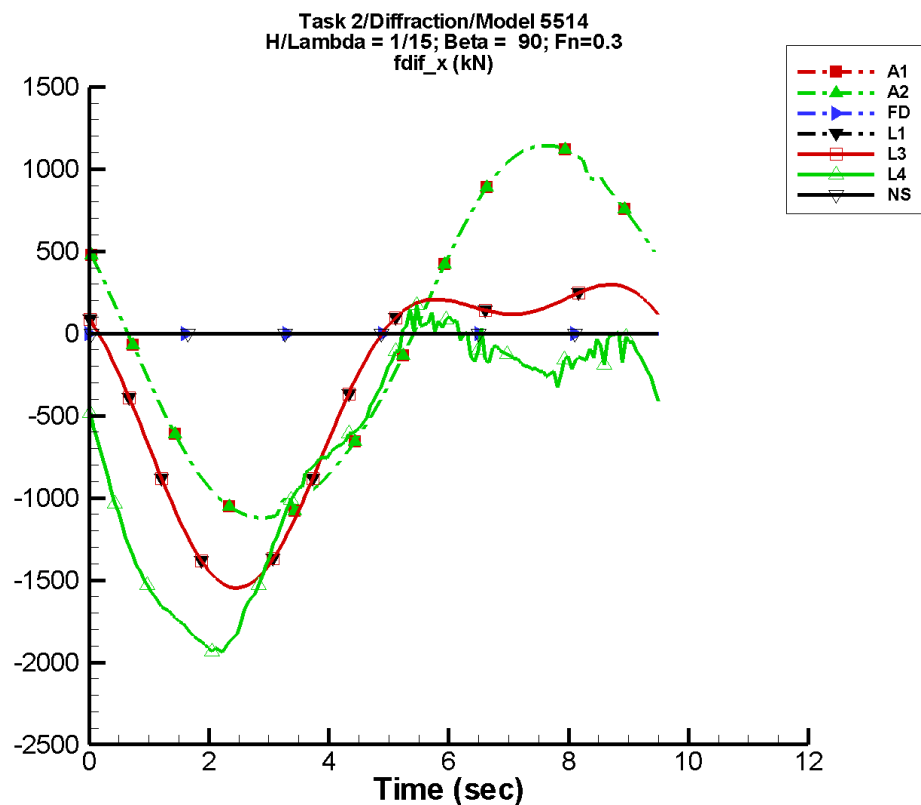
Table H-1579. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	1.71	852.	153	1.28	-90
A2	1.71	852.	153	1.28	-90
FD	5.55E-10	2.44E-05	134	5.96E-10	133
L1	-343.	627.	171	204.	80
L3	-343.	627.	171	204.	80
L4	-581.	758.	-174	208.	99
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1580. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-843.	859.	-828.	850.
A2	-843.	859.	-828.	850.
FD	-2.44E-05	2.44E-05	-2.41E-05	2.41E-05
L1	-1.17E+03	129.	-1.17E+03	127.
L3	-1.17E+03	128.	-1.17E+03	127.
L4	-1.58E+03	134.	-1.54E+03	62.5
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-791. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

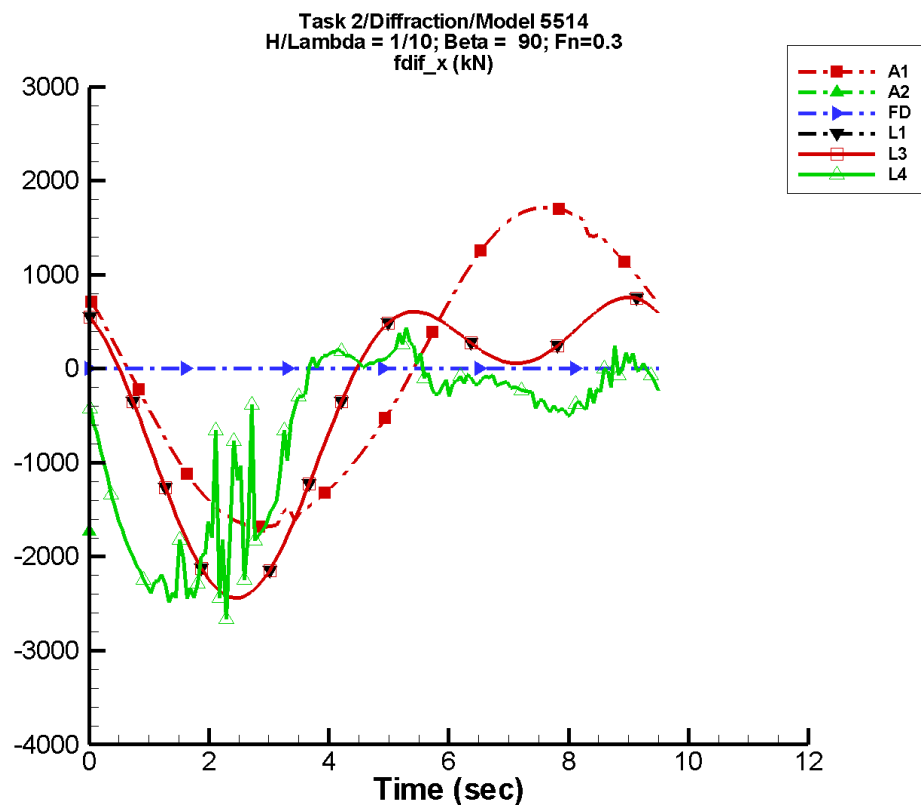
Table H-1581. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	2.28	1.13E+03	153	1.70	-90
A2	2.28	1.13E+03	153	1.70	-90
FD	7.38E-10	3.26E-05	134	7.96E-10	132
L1	-351.	836.	171	363.	80
L3	-351.	836.	171	363.	80
L4	-692.	879.	-169	304.	109
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1582. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.12E+03	1.14E+03	-1.10E+03	1.13E+03
A2	-1.12E+03	1.14E+03	-1.10E+03	1.13E+03
FD	-3.26E-05	3.26E-05	-3.22E-05	3.22E-05
L1	-1.55E+03	297.	-1.54E+03	293.
L3	-1.55E+03	297.	-1.54E+03	293.
L4	-1.94E+03	215.	-1.92E+03	79.6
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-792. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

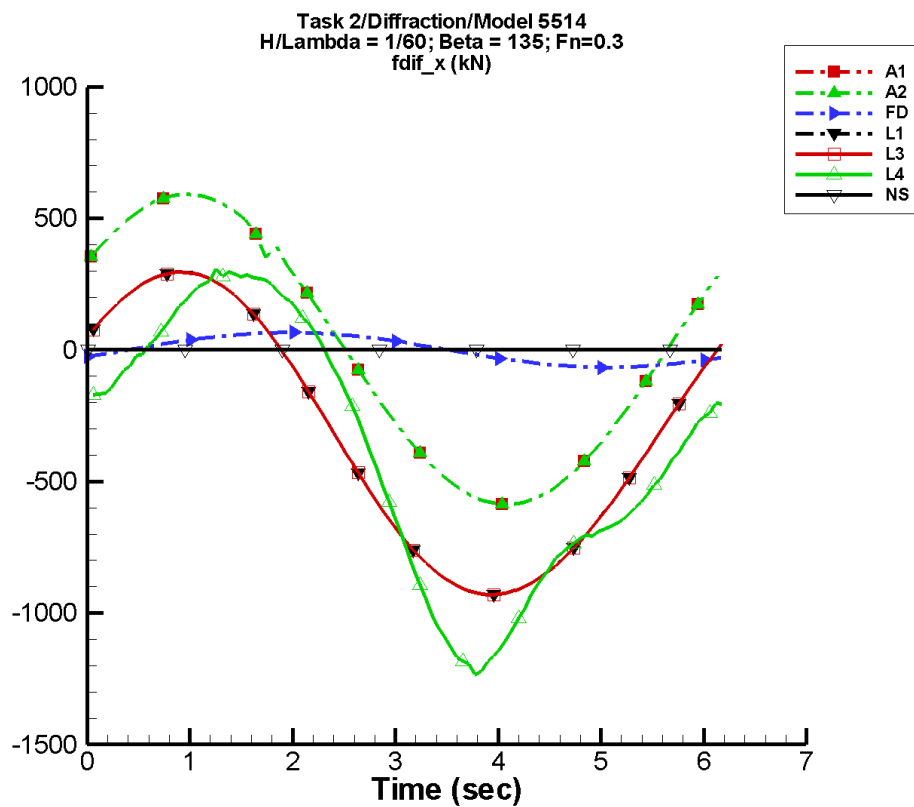
Table H-1583. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.42	1.70E+03	153	2.56	-90
A2	1.09E+03	2.91E+03	-98	2.82E+03	58
FD	1.11E-09	4.88E-05	134	1.19E-09	132
L1	-373.	1.25E+03	171	816.	80
L3	-374.	1.25E+03	171	817.	80
L4	-654.	964.	-148	585.	131
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1584. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.69E+03	1.72E+03	-1.66E+03	1.70E+03
A2	-1.73E+03	-1.69E+03	-1.73E+03	-1.69E+03
FD	-4.88E-05	4.88E-05	-4.83E-05	4.83E-05
L1	-2.44E+03	759.	-2.42E+03	747.
L3	-2.44E+03	759.	-2.42E+03	747.
L4	-2.67E+03	466.	-2.30E+03	286.
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-793. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1585. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

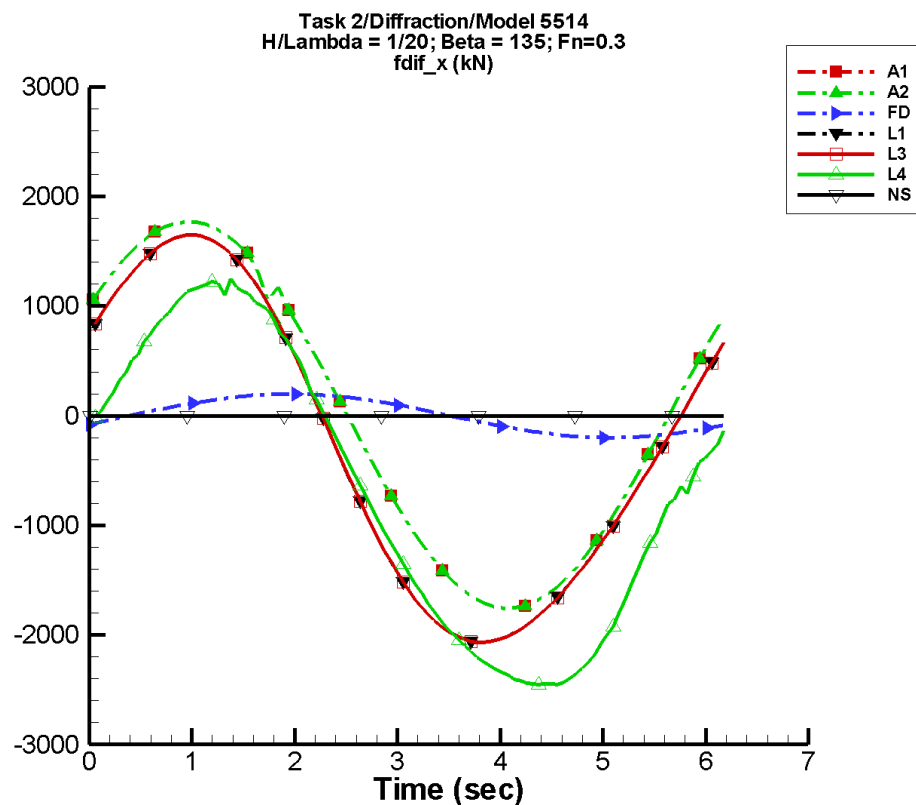
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.84	587.	27	3.25	-8
A2	-2.84	587.	27	3.25	-8
FD	4.62E-02	66.3	-45	5.58E-02	-25
L1	-326.	612.	30	17.4	-91
L3	-326.	612.	30	17.4	-91
L4	-384.	647.	16	176.	-156
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1586. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-587.	591.	-572.	578.
A2	-587.	591.	-572.	578.
FD	-66.2	66.3	-64.5	64.6
L1	-930.	296.	-924.	294.
L3	-930.	296.	-925.	294.
L4	-1.24E+03	308.	-1.19E+03	285.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-794. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

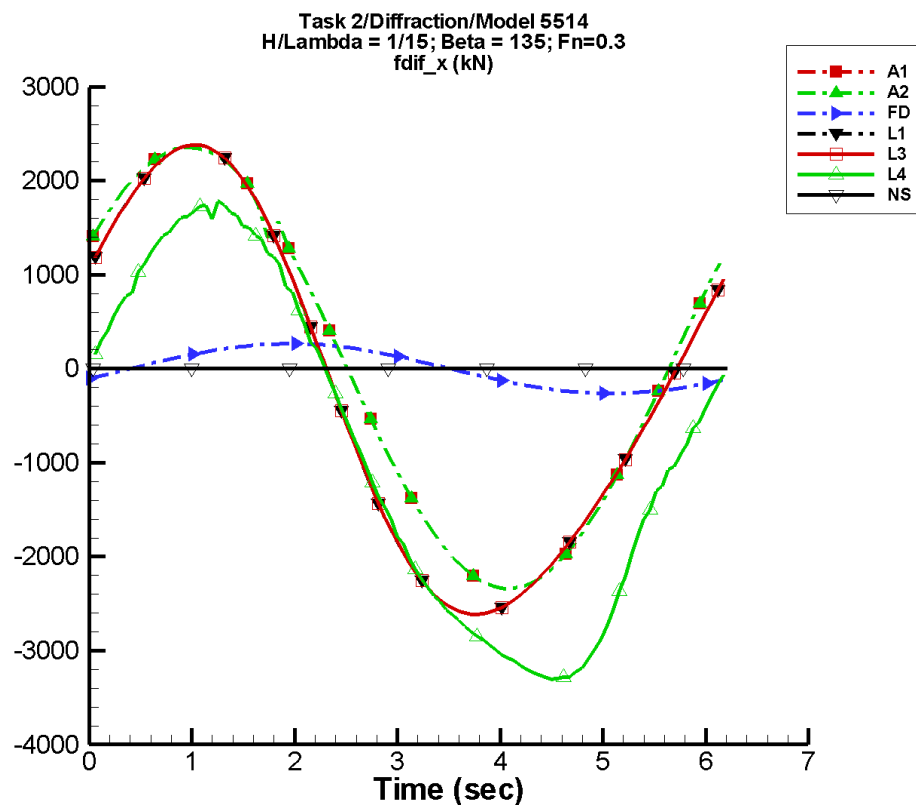
Table H-1587. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.51	1.76E+03	27	9.71	-8
A2	-8.51	1.76E+03	27	9.71	-8
FD	0.139	199.	-45	0.167	-25
L1	-277.	1.84E+03	30	155.	-93
L3	-277.	1.84E+03	30	155.	-93
L4	-686.	1.79E+03	13	72.0	-123
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1588. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.76E+03	1.77E+03	-1.71E+03	1.73E+03
A2	-1.76E+03	1.77E+03	-1.71E+03	1.73E+03
FD	-199.	199.	-194.	194.
L1	-2.07E+03	1.65E+03	-2.05E+03	1.63E+03
L3	-2.07E+03	1.65E+03	-2.05E+03	1.63E+03
L4	-2.45E+03	1.25E+03	-2.44E+03	1.19E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-795. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

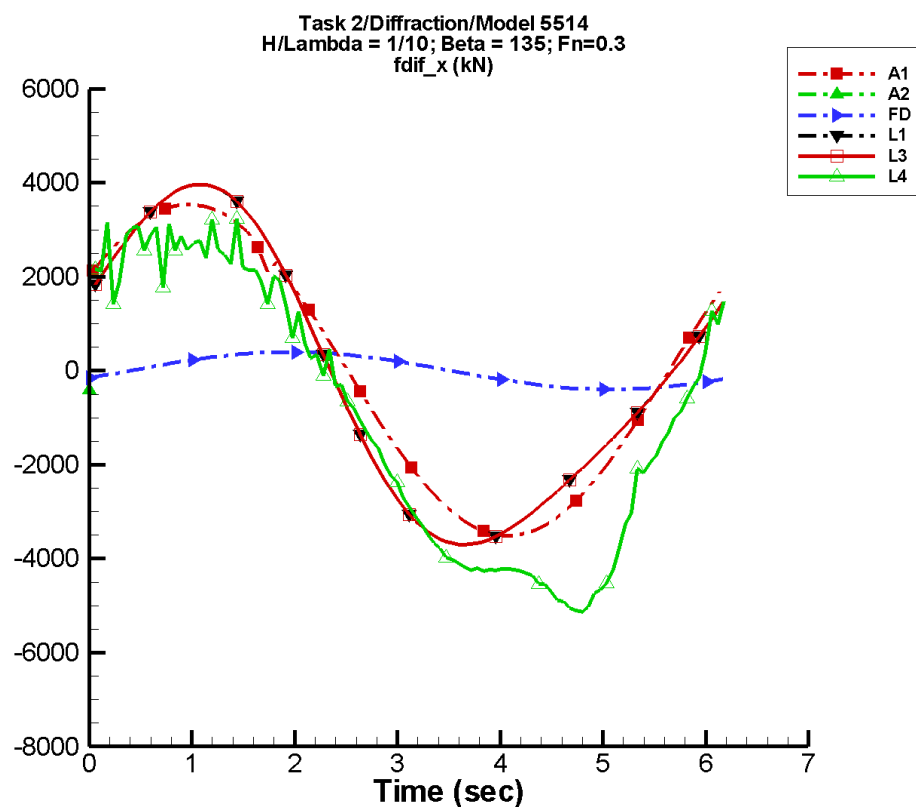
Table H-1589. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-11.3	2.34E+03	27	12.9	-8
A2	-11.3	2.34E+03	27	12.9	-8
FD	0.185	265.	-45	0.223	-25
L1	-234.	2.45E+03	30	276.	-93
L3	-234.	2.45E+03	30	276.	-93
L4	-867.	2.45E+03	15	79.5	-71
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1590. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.34E+03	2.35E+03	-2.28E+03	2.30E+03
A2	-2.34E+03	2.35E+03	-2.28E+03	2.30E+03
FD	-265.	265.	-258.	258.
L1	-2.61E+03	2.38E+03	-2.59E+03	2.35E+03
L3	-2.61E+03	2.38E+03	-2.59E+03	2.35E+03
L4	-3.30E+03	1.78E+03	-3.27E+03	1.69E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-796. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

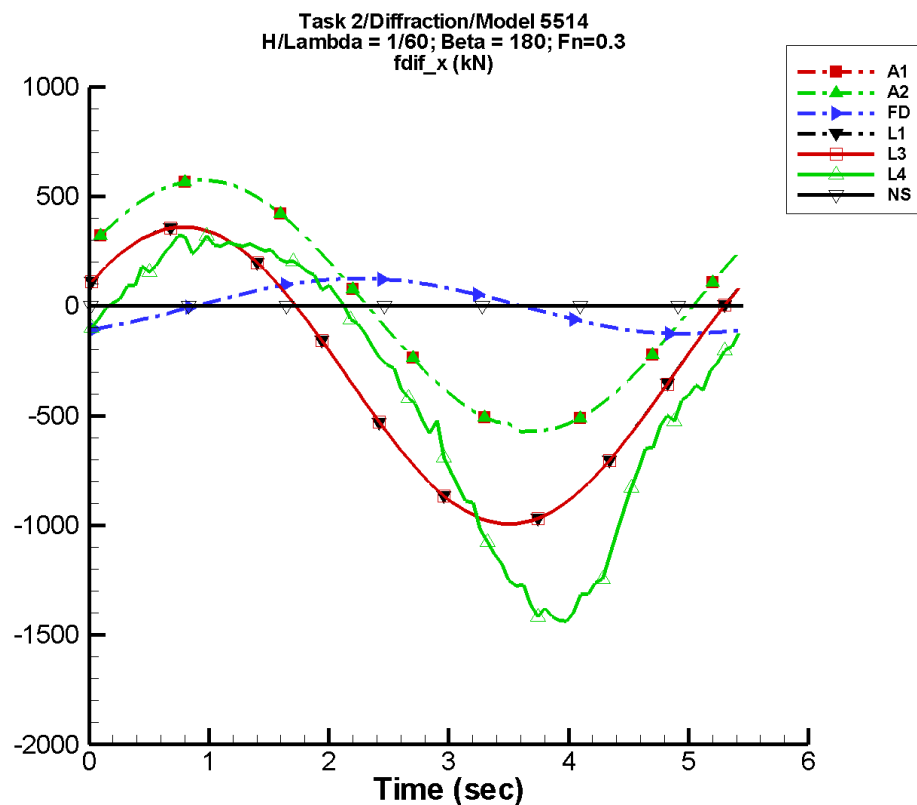
Table H-1591. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-17.0	3.51E+03	27	19.4	-8
A2	-1.01E+03	1.96E+03	-122	2.83E+03	106
FD	0.277	398.	-45	0.335	-25
L1	-110.	3.67E+03	30	621.	-93
L3	-110.	3.67E+03	30	621.	-94
L4	-961.	3.93E+03	20	416.	39
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1592. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.51E+03	3.54E+03	-3.42E+03	3.46E+03
A2	-759.	-411.	-759.	-411.
FD	-397.	398.	-387.	387.
L1	-3.70E+03	3.96E+03	-3.67E+03	3.91E+03
L3	-3.70E+03	3.96E+03	-3.67E+03	3.91E+03
L4	-5.14E+03	3.43E+03	-4.96E+03	2.84E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-797. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1593. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

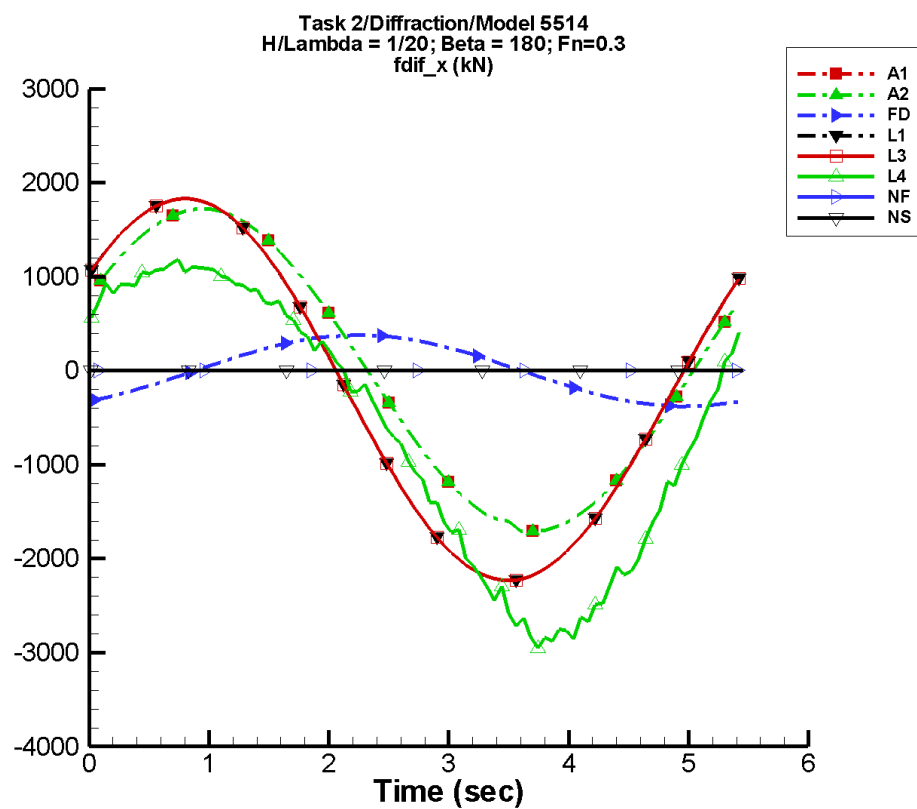
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.79	571.	34	4.48	75
A2	3.79	571.	34	4.48	75
FD	-0.401	126.	34	0.384	-31
L1	-317.	677.	61	3.52	-52
L3	-317.	677.	61	3.52	-52
L4	-393.	802.	38	148.	168
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1594. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-572.	575.	-549.	556.
A2	-572.	575.	-549.	556.
FD	-126.	126.	-122.	122.
L1	-994.	360.	-987.	352.
L3	-994.	360.	-987.	352.
L4	-1.44E+03	321.	-1.39E+03	288.
NF	—	—	—	—
NS	—	—	—	—



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-798. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

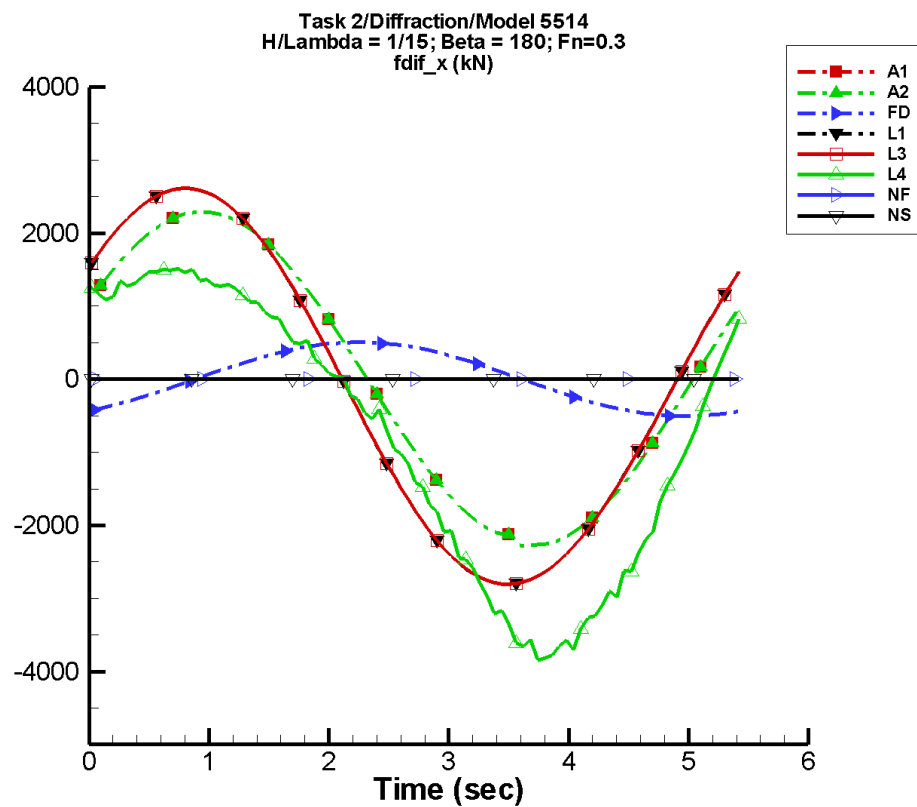
Table H-1595. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	11.3	1.71E+03	34	13.4	75
A2	11.3	1.71E+03	34	13.4	75
FD	-1.20	379.	34	1.15	-31
L1	-205.	2.03E+03	61	21.3	-49
L3	-205.	2.03E+03	61	21.3	-49
L4	-645.	1.94E+03	45	310.	136
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1596. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.71E+03	1.72E+03	-1.64E+03	1.66E+03
A2	-1.71E+03	1.72E+03	-1.64E+03	1.66E+03
FD	-378.	379.	-367.	366.
L1	-2.23E+03	1.83E+03	-2.21E+03	1.81E+03
L3	-2.23E+03	1.83E+03	-2.21E+03	1.81E+03
L4	-2.96E+03	1.19E+03	-2.81E+03	1.10E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-799. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

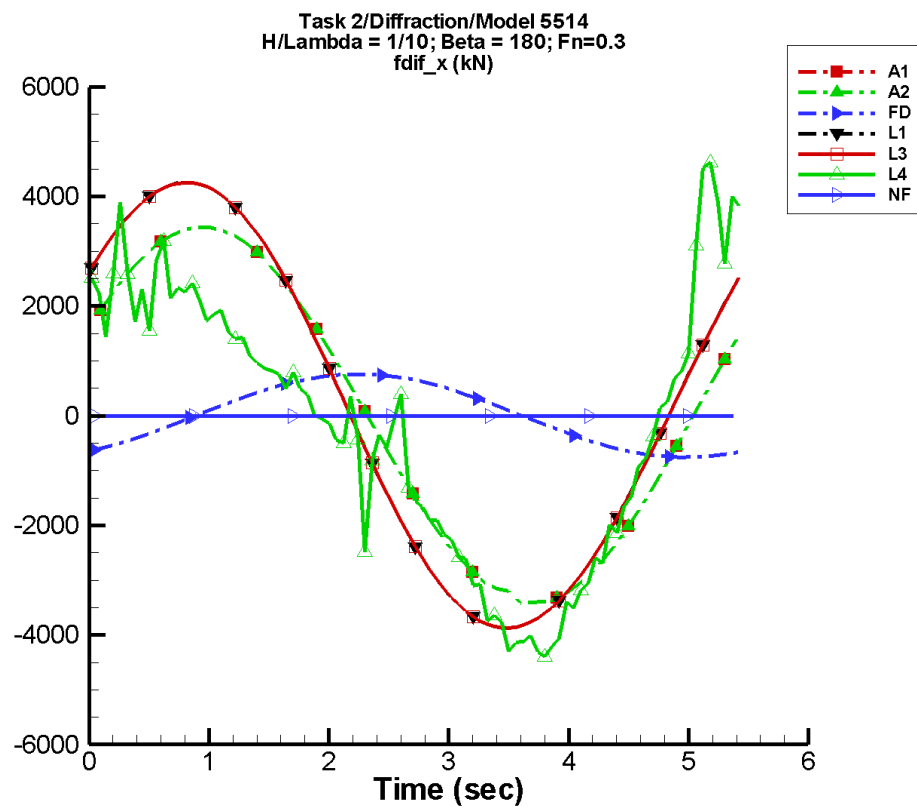
Table H-1597. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	15.1	2.27E+03	34	17.8	75
A2	15.1	2.27E+03	34	17.8	75
FD	-1.60	505.	34	1.54	-31
L1	-106.	2.71E+03	61	35.6	-48
L3	-106.	2.71E+03	61	35.7	-48
L4	-799.	2.52E+03	48	483.	139
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1598. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.28E+03	2.29E+03	-2.18E+03	2.22E+03
A2	-2.28E+03	2.29E+03	-2.18E+03	2.22E+03
FD	-505.	505.	-489.	488.
L1	-2.81E+03	2.61E+03	-2.78E+03	2.58E+03
L3	-2.81E+03	2.61E+03	-2.78E+03	2.58E+03
L4	-3.93E+03	1.52E+03	-3.69E+03	1.47E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-800. Time history of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

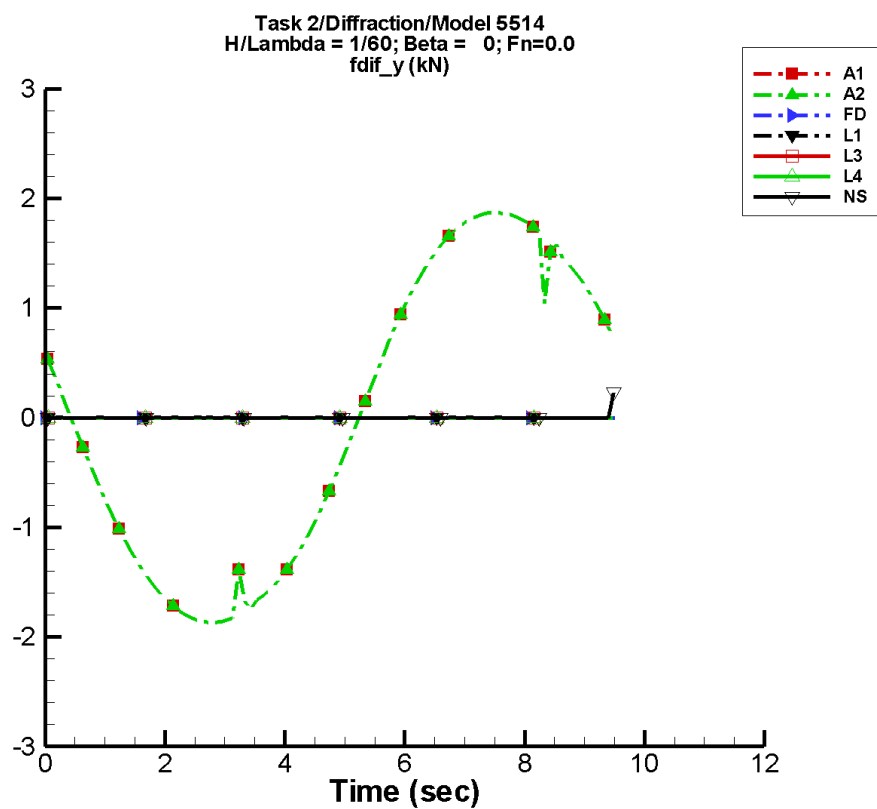
Table H-1599. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	22.7	3.42E+03	34	26.8	75
A2	22.7	3.42E+03	34	26.8	75
FD	-2.40	758.	34	2.30	-31
L1	176.	4.06E+03	61	75.5	-47
L3	176.	4.06E+03	61	75.6	-47
L4	-185.	2.90E+03	76	877.	147
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1600. Minimum and maximum of  $F_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.42E+03	3.44E+03	-3.28E+03	3.33E+03
A2	-3.42E+03	3.44E+03	-3.28E+03	3.33E+03
FD	-757.	757.	-733.	732.
L1	-3.87E+03	4.26E+03	-3.83E+03	4.21E+03
L3	-3.87E+03	4.26E+03	-3.83E+03	4.21E+03
L4	-4.40E+03	4.62E+03	-4.15E+03	3.53E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-801. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1601. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

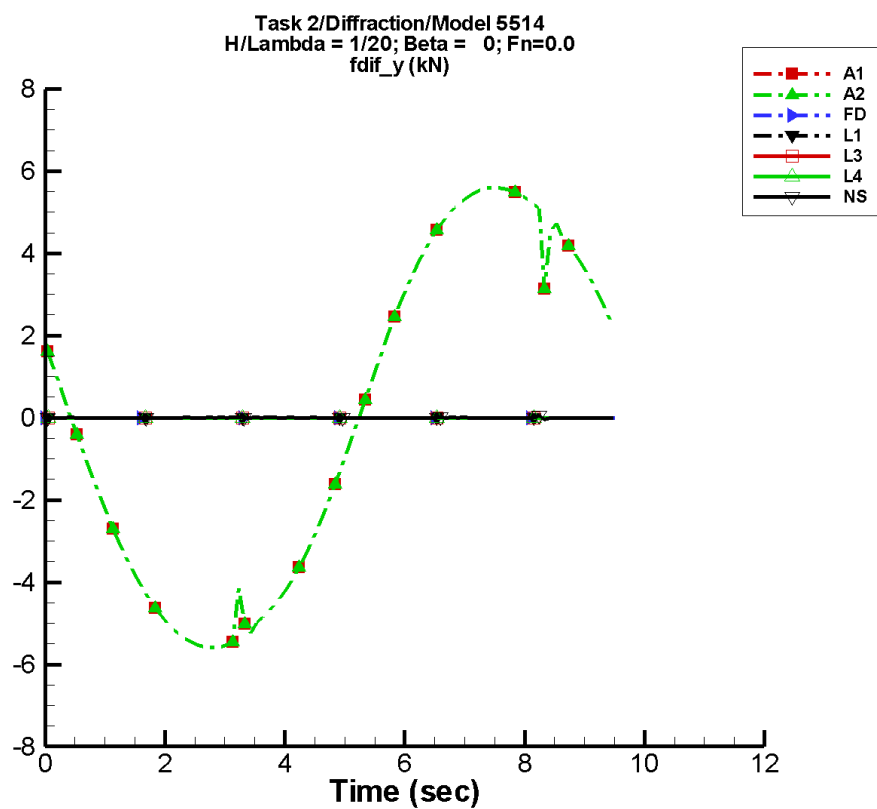
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.66E-03	1.91	159	5.40E-03	60
A2	-3.66E-03	1.91	159	5.40E-03	60
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.37E-05	3.30E-04	141	4.10E-04	-159

Table H-1602. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.87	1.87	-1.84	1.86
A2	-1.87	1.87	-1.84	1.86
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.231	0.232	-4.79E-03	5.65E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-802. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

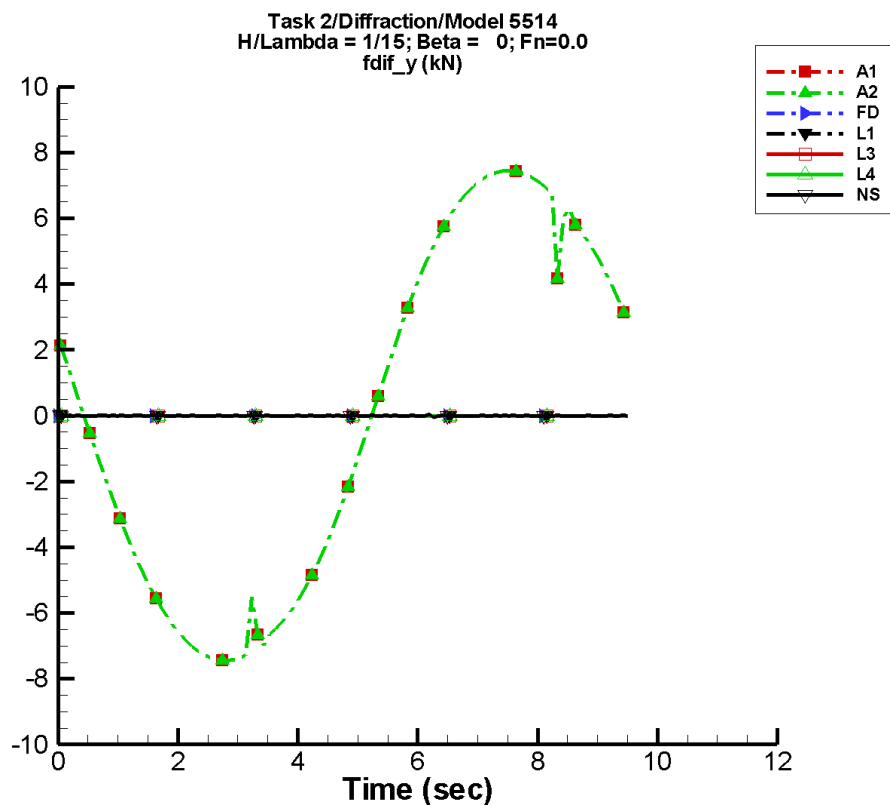
Table H-1603. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.10E-02	5.71	159	1.61E-02	60
A2	-1.10E-02	5.71	159	1.61E-02	60
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.41E-05	1.25E-03	-51	1.80E-03	-141

Table H-1604. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.59	5.60	-5.49	5.56
A2	-5.59	5.60	-5.49	5.56
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.17E-02	5.08E-02	-4.14E-03	6.98E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-803. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

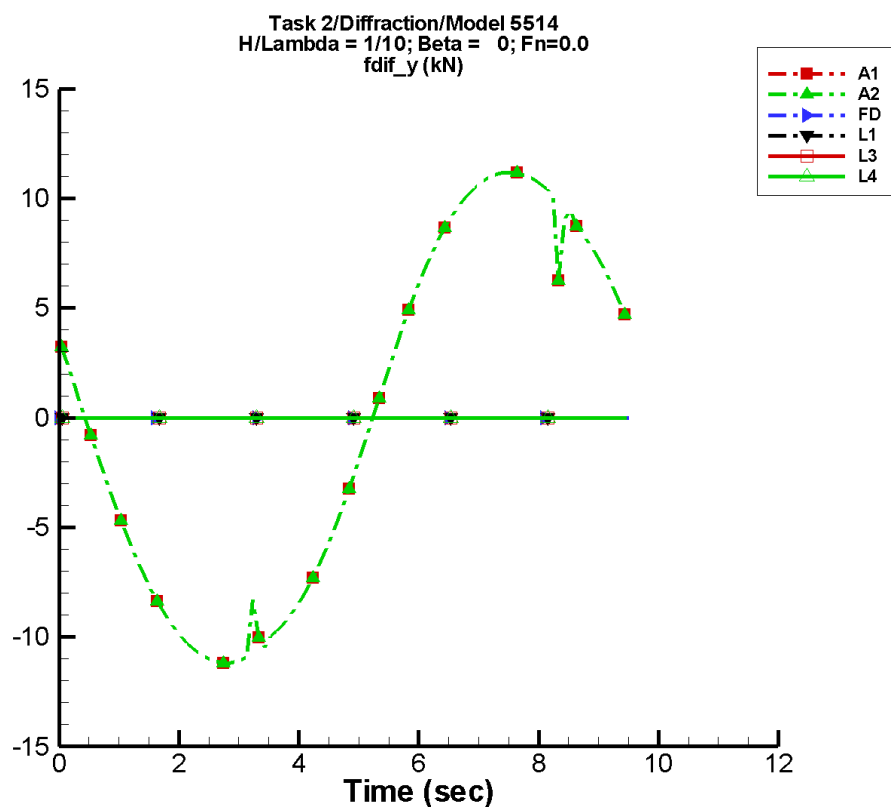
Table H-1605. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.46E-02	7.60	159	2.15E-02	60
A2	-1.46E-02	7.60	159	2.15E-02	60
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.01E-04	5.26E-04	2	2.67E-04	129

Table H-1606. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.44	7.45	-7.31	7.40
A2	-7.44	7.45	-7.31	7.40
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.145	0.134	-6.48E-03	5.99E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-804. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

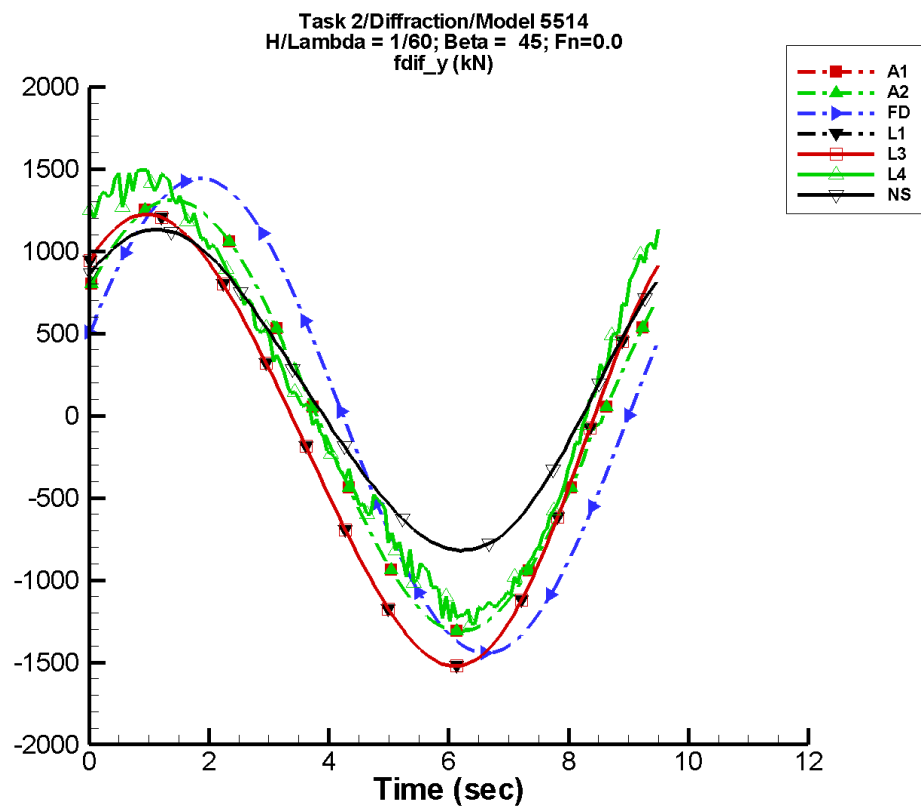
Table H-1607. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.19E-02	11.4	159	3.23E-02	60
A2	-2.19E-02	11.4	159	3.23E-02	60
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1608. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-11.2	11.2	-11.0	11.1
A2	-11.2	11.2	-11.0	11.1
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-805. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1609. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

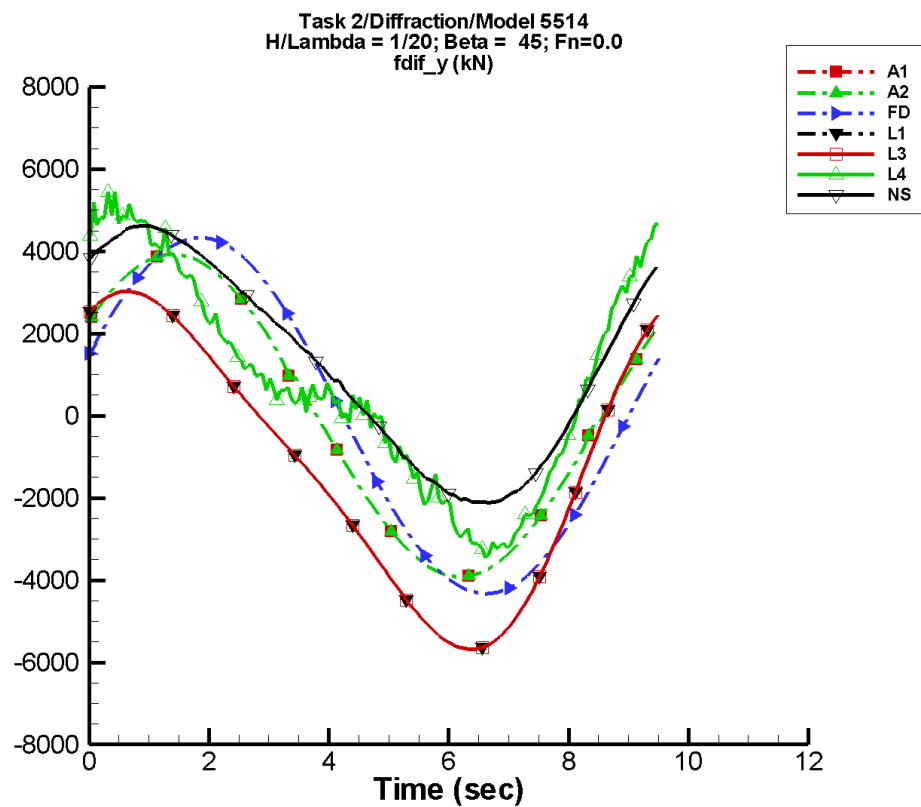
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.57	1.30E+03	32	2.73	1
A2	-1.57	1.30E+03	32	2.73	1
FD	-4.83E-02	1.44E+03	15	4.50E-02	-93
L1	-138.	1.36E+03	43	90.3	94
L3	-138.	1.36E+03	43	90.3	94
L4	98.4	1.27E+03	41	195.	71
NF	—	—	—	—	—
NS	149.	970.	41	56.4	76

Table H-1610. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.31E+03	1.31E+03	-1.30E+03	1.30E+03
A2	-1.31E+03	1.31E+03	-1.30E+03	1.30E+03
FD	-1.44E+03	1.44E+03	-1.43E+03	1.43E+03
L1	-1.52E+03	1.22E+03	-1.52E+03	1.22E+03
L3	-1.52E+03	1.22E+03	-1.52E+03	1.22E+03
L4	-1.27E+03	1.50E+03	-1.21E+03	1.45E+03
NF	—	—	—	—
NS	-821.	1.13E+03	-809.	1.12E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-806. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

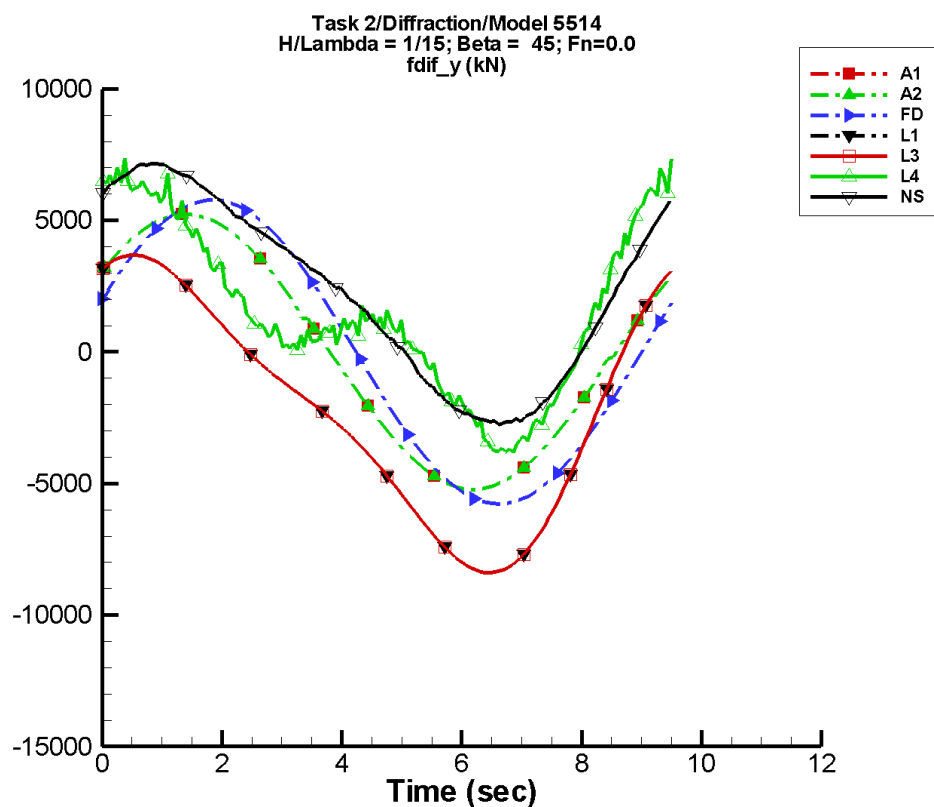
Table H-1611. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.69	3.89E+03	32	8.17	1
A2	-4.69	3.89E+03	32	8.17	1
FD	-0.144	4.33E+03	15	0.136	-93
L1	-1.25E+03	4.09E+03	43	811.	93
L3	-1.25E+03	4.09E+03	43	811.	93
L4	811.	3.30E+03	44	1.40E+03	79
NF	—	—	—	—	—
NS	1.25E+03	3.20E+03	37	546.	81

Table H-1612. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.92E+03	3.92E+03	-3.88E+03	3.88E+03
A2	-3.92E+03	3.92E+03	-3.88E+03	3.88E+03
FD	-4.33E+03	4.33E+03	-4.29E+03	4.28E+03
L1	-5.69E+03	3.03E+03	-5.66E+03	3.01E+03
L3	-5.69E+03	3.03E+03	-5.66E+03	3.01E+03
L4	-3.46E+03	5.45E+03	-3.23E+03	5.00E+03
NF	—	—	—	—
NS	-2.12E+03	4.63E+03	-2.08E+03	4.56E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-807. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

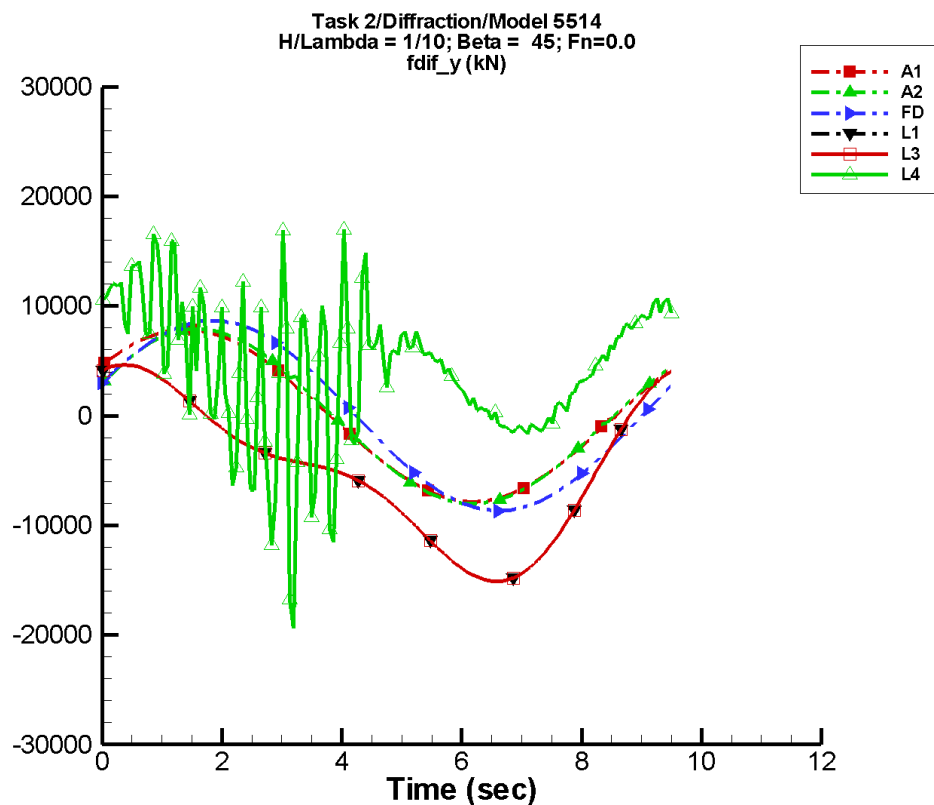
Table H-1613. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.24	5.18E+03	32	10.9	1
A2	-6.24	5.18E+03	32	10.9	1
FD	-0.193	5.78E+03	15	0.181	-93
L1	-2.21E+03	5.45E+03	43	1.44E+03	93
L3	-2.21E+03	5.45E+03	43	1.44E+03	93
L4	1.52E+03	3.73E+03	50	2.23E+03	80
NF	—	—	—	—	—
NS	2.29E+03	4.58E+03	35	976.	84

Table H-1614. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.22E+03	5.22E+03	-5.16E+03	5.16E+03
A2	-5.22E+03	5.22E+03	-5.16E+03	5.16E+03
FD	-5.78E+03	5.78E+03	-5.71E+03	5.71E+03
L1	-8.39E+03	3.70E+03	-8.35E+03	3.67E+03
L3	-8.39E+03	3.70E+03	-8.35E+03	3.67E+03
L4	-3.82E+03	7.45E+03	-3.70E+03	6.65E+03
NF	—	—	—	—
NS	-2.76E+03	7.15E+03	-2.66E+03	7.10E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-808. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

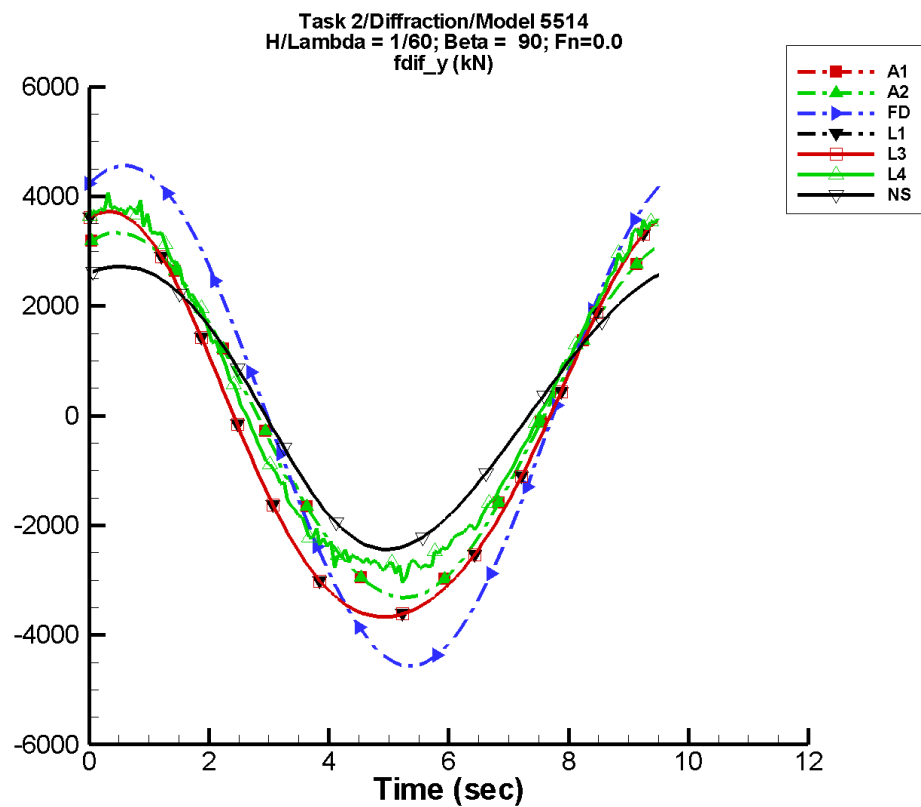
Table H-1615. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.38	7.78E+03	32	16.3	1
A2	-18.8	7.79E+03	36	185.	-130
FD	-0.289	8.67E+03	15	0.272	-93
L1	-4.98E+03	8.17E+03	43	3.24E+03	93
L3	-4.98E+03	8.17E+03	43	3.24E+03	93
L4	4.29E+03	3.22E+03	73	4.94E+03	60
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1616. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-7.84E+03	7.85E+03	-7.75E+03	7.75E+03
A2	-8.03E+03	7.91E+03	-7.93E+03	7.80E+03
FD	-8.67E+03	8.66E+03	-8.57E+03	8.57E+03
L1	-1.51E+04	4.68E+03	-1.50E+04	4.61E+03
L3	-1.51E+04	4.68E+03	-1.50E+04	4.61E+03
L4	-1.93E+04	1.69E+04	-2.00E+03	1.16E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-809. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1617. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

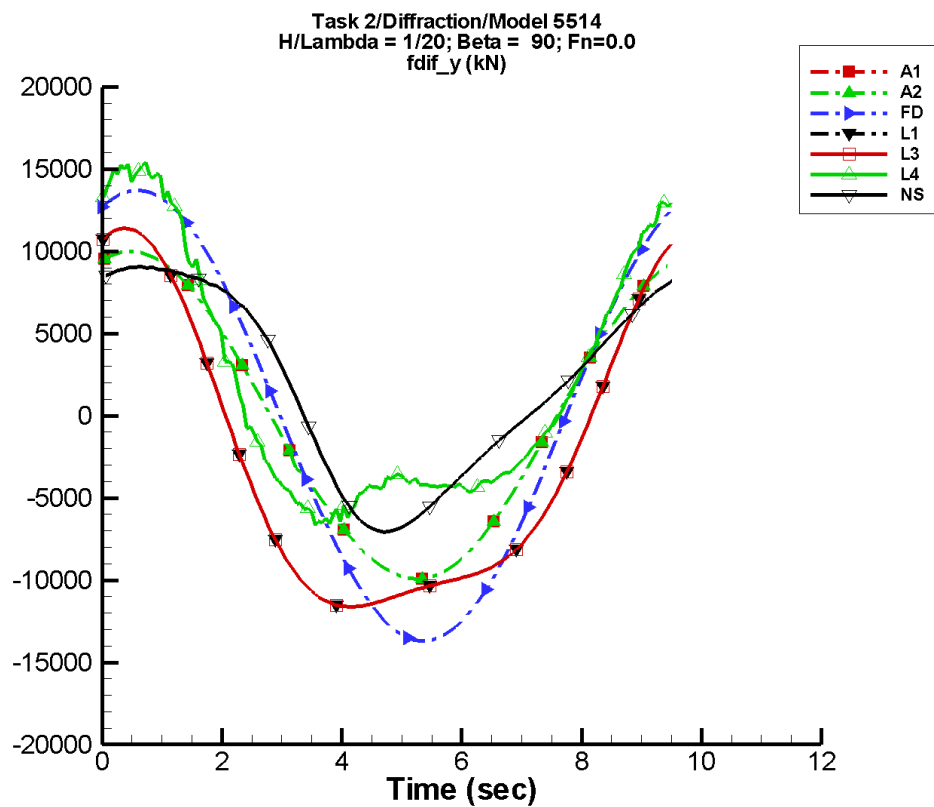
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.38	3.31E+03	68	7.77	31
A2	-2.38	3.31E+03	68	7.77	31
FD	-7.57E-02	4.56E+03	62	0.110	-129
L1	-300.	3.69E+03	76	343.	46
L3	-300.	3.69E+03	76	343.	46
L4	179.	3.35E+03	75	341.	45
NF	—	—	—	—	—
NS	228.	2.56E+03	75	167.	-60

Table H-1618. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.32E+03	3.34E+03	-3.28E+03	3.29E+03
A2	-3.32E+03	3.34E+03	-3.28E+03	3.29E+03
FD	-4.56E+03	4.56E+03	-4.51E+03	4.51E+03
L1	-3.67E+03	3.72E+03	-3.66E+03	3.70E+03
L3	-3.67E+03	3.72E+03	-3.66E+03	3.70E+03
L4	-3.05E+03	4.07E+03	-2.85E+03	3.81E+03
NF	—	—	—	—
NS	-2.45E+03	2.73E+03	-2.41E+03	2.70E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-810. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

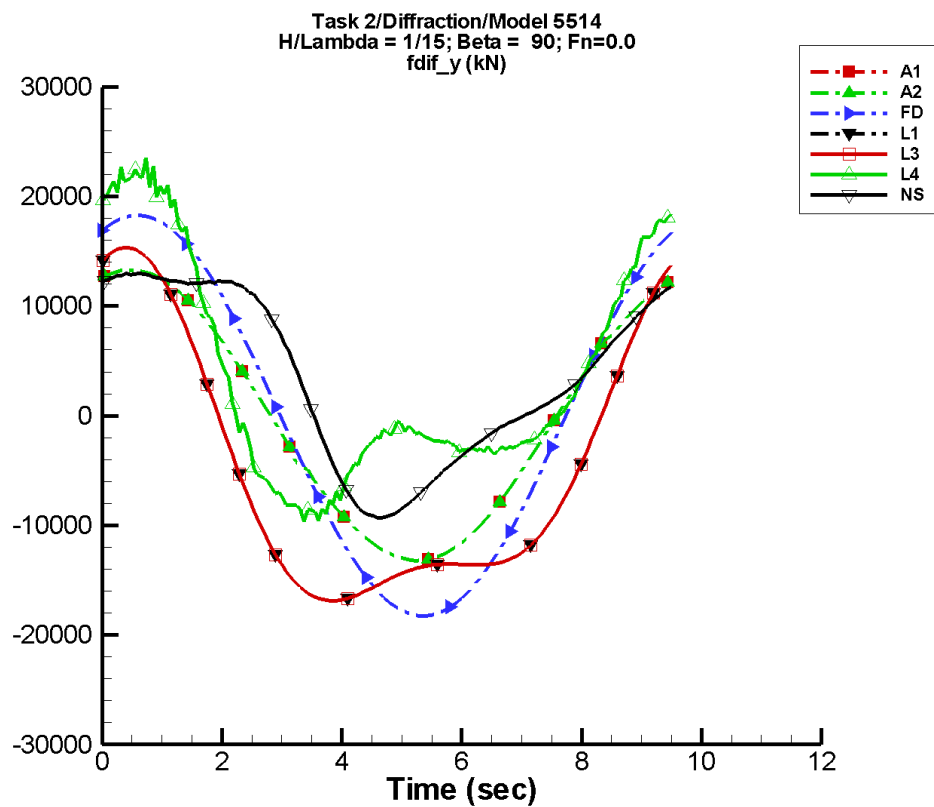
Table H-1619. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-7.13	9.90E+03	68	23.2	31
A2	-7.13	9.90E+03	68	23.2	31
FD	-0.227	1.37E+04	62	0.330	-129
L1	-2.69E+03	1.11E+04	76	3.08E+03	45
L3	-2.69E+03	1.11E+04	76	3.08E+03	45
L4	1.93E+03	9.68E+03	77	3.55E+03	46
NF	—	—	—	—	—
NS	1.89E+03	7.58E+03	69	1.38E+03	-68

Table H-1620. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-9.92E+03	9.98E+03	-9.81E+03	9.85E+03
A2	-9.92E+03	9.98E+03	-9.81E+03	9.85E+03
FD	-1.37E+04	1.37E+04	-1.35E+04	1.35E+04
L1	-1.16E+04	1.14E+04	-1.16E+04	1.13E+04
L3	-1.16E+04	1.14E+04	-1.16E+04	1.13E+04
L4	-6.68E+03	1.54E+04	-6.29E+03	1.50E+04
NF	—	—	—	—
NS	-7.08E+03	9.08E+03	-6.87E+03	8.97E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-811. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

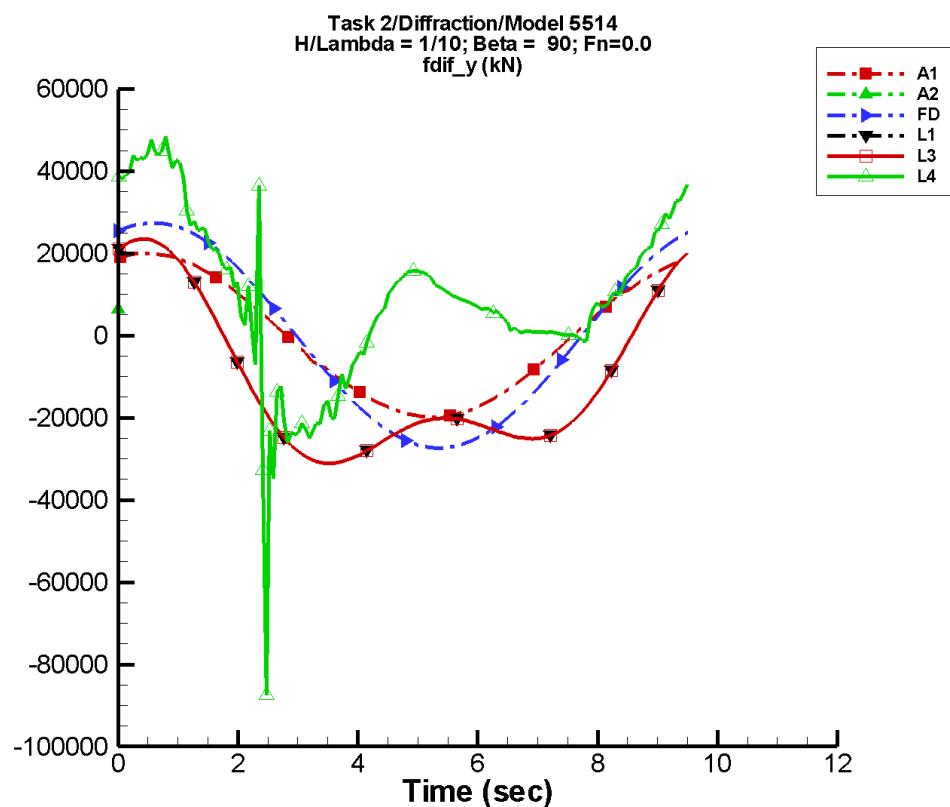
Table H-1621. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.49	1.32E+04	68	30.9	31
A2	-9.49	1.32E+04	68	30.9	31
FD	-0.302	1.83E+04	62	0.441	-129
L1	-4.79E+03	1.47E+04	76	5.48E+03	45
L3	-4.79E+03	1.47E+04	76	5.48E+03	45
L4	3.65E+03	1.22E+04	81	6.89E+03	46
NF	—	—	—	—	—
NS	3.43E+03	1.02E+04	64	2.24E+03	-72

Table H-1622. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.32E+04	1.33E+04	-1.31E+04	1.31E+04
A2	-1.32E+04	1.33E+04	-1.31E+04	1.31E+04
FD	-1.82E+04	1.83E+04	-1.80E+04	1.81E+04
L1	-1.69E+04	1.54E+04	-1.68E+04	1.52E+04
L3	-1.69E+04	1.54E+04	-1.68E+04	1.52E+04
L4	-9.68E+03	2.35E+04	-8.83E+03	2.20E+04
NF	—	—	—	—
NS	-9.34E+03	1.30E+04	-9.13E+03	1.29E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-812. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

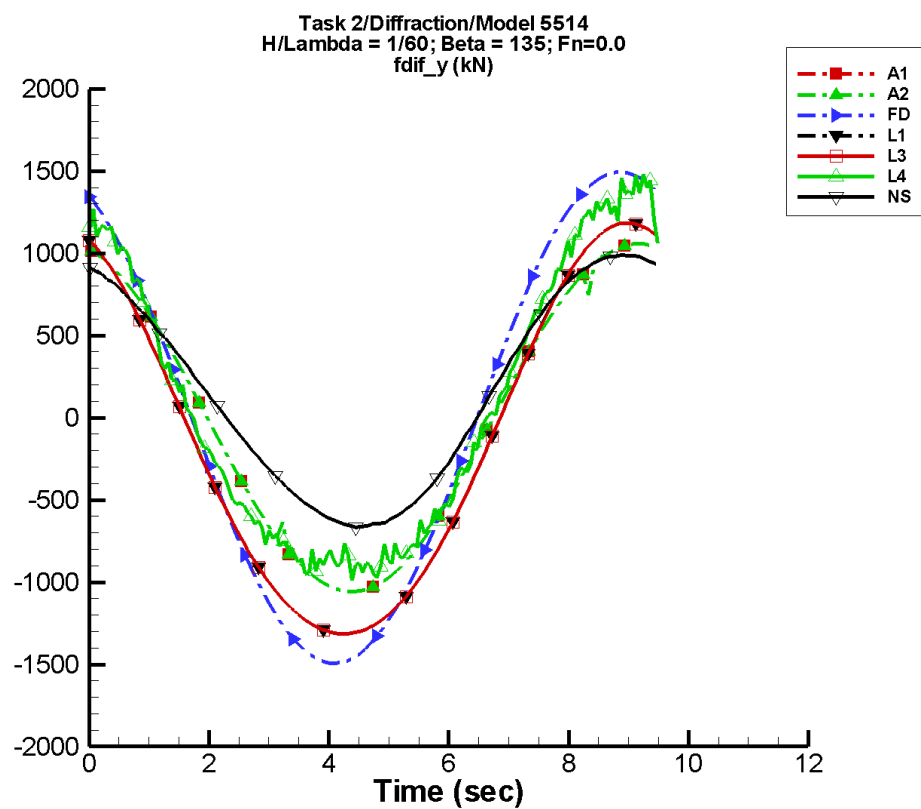
Table H-1623. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-14.3	1.98E+04	68	46.5	31
A2	-815.	5.30E+04	85	1.63E+04	-172
FD	-0.454	2.74E+04	62	0.659	-129
L1	-1.08E+04	2.21E+04	76	1.23E+04	45
L3	-1.08E+04	2.21E+04	76	1.23E+04	45
L4	9.51E+03	1.63E+04	98	2.04E+04	47
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1624. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.98E+04	2.00E+04	-1.96E+04	1.97E+04
A2	6.45E+03	7.76E+03	6.45E+03	7.76E+03
FD	-2.74E+04	2.74E+04	-2.71E+04	2.71E+04
L1	-3.11E+04	2.36E+04	-3.09E+04	2.33E+04
L3	-3.11E+04	2.36E+04	-3.09E+04	2.33E+04
L4	-1.02E+05	4.85E+04	-2.65E+04	4.53E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-813. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1625. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

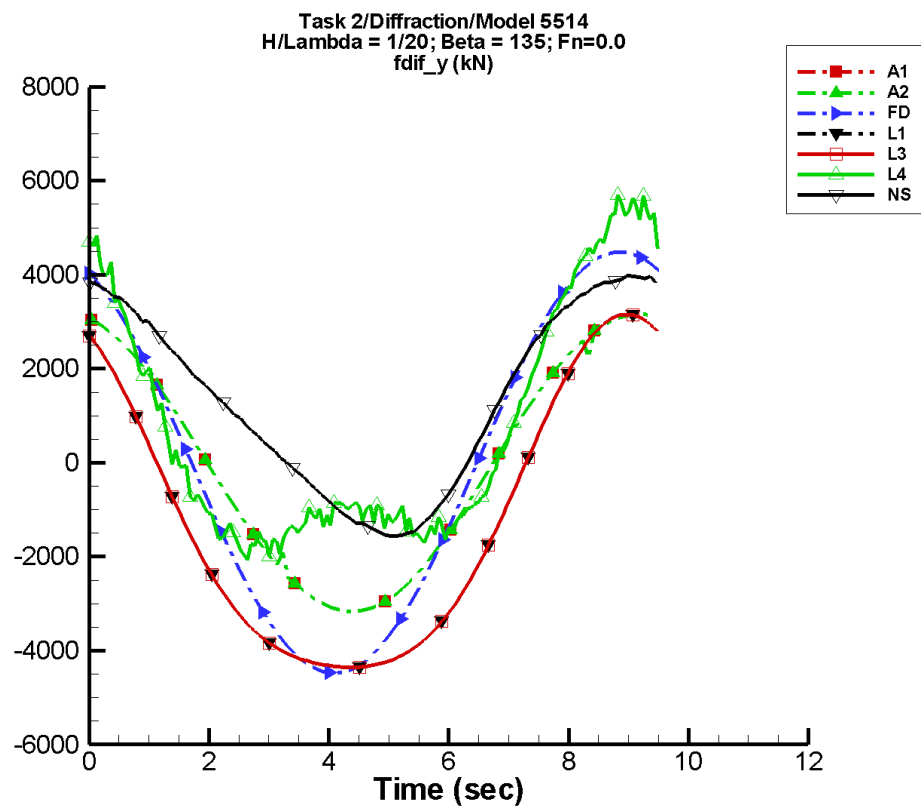
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.10	1.05E+03	100	1.76	29
A2	-1.10	1.05E+03	100	1.76	29
FD	1.70E-02	1.49E+03	110	2.92E-02	162
L1	-139.	1.25E+03	107	72.8	128
L3	-139.	1.25E+03	107	72.8	128
L4	79.3	1.14E+03	107	163.	124
NF	—	—	—	—	—
NS	160.	822.	106	53.9	-151

Table H-1626. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.06E+03	1.06E+03	-1.05E+03	1.05E+03
A2	-1.06E+03	1.06E+03	-1.05E+03	1.05E+03
FD	-1.49E+03	1.49E+03	-1.51E+03	1.48E+03
L1	-1.32E+03	1.18E+03	-1.32E+03	1.18E+03
L3	-1.32E+03	1.18E+03	-1.32E+03	1.18E+03
L4	-990.	1.48E+03	-934.	1.39E+03
NF	—	—	—	—
NS	-666.	989.	-652.	979.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-814. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

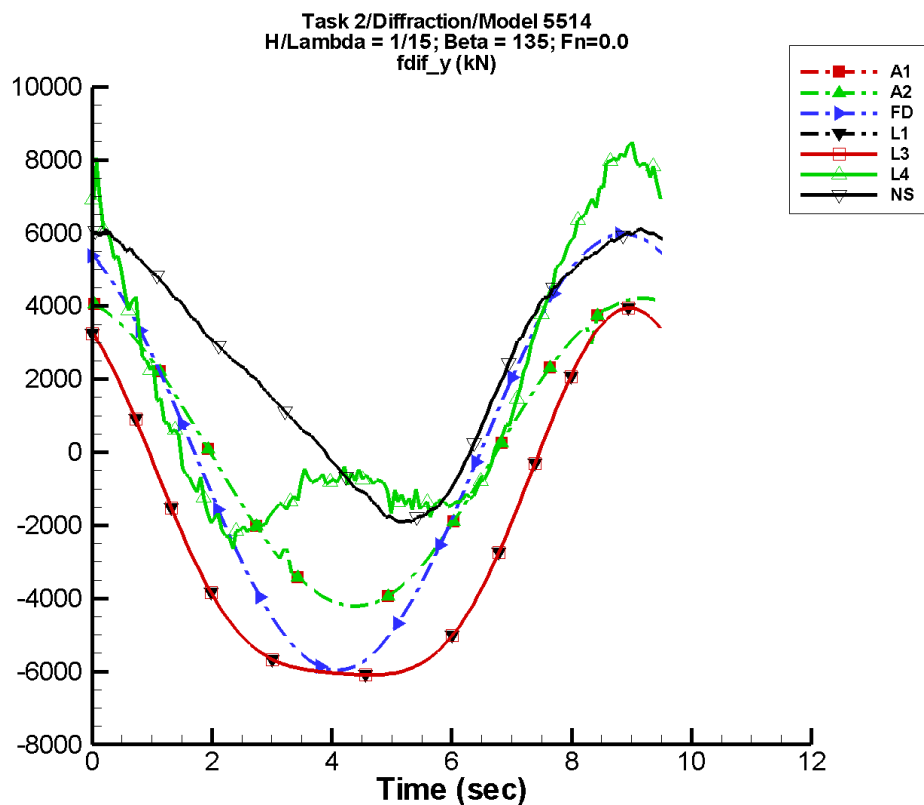
Table H-1627. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.29	3.15E+03	100	5.28	29
A2	-3.29	3.15E+03	100	5.28	29
FD	5.07E-02	4.48E+03	110	8.71E-02	162
L1	-1.25E+03	3.75E+03	107	655.	128
L3	-1.25E+03	3.75E+03	107	655.	128
L4	756.	3.21E+03	110	1.45E+03	123
NF	—	—	—	—	—
NS	1.34E+03	2.67E+03	97	387.	-156

Table H-1628. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.17E+03	3.16E+03	-3.13E+03	3.13E+03
A2	-3.17E+03	3.16E+03	-3.13E+03	3.13E+03
FD	-4.48E+03	4.48E+03	-4.53E+03	4.43E+03
L1	-4.35E+03	3.15E+03	-4.37E+03	3.13E+03
L3	-4.35E+03	3.15E+03	-4.37E+03	3.13E+03
L4	-2.08E+03	5.71E+03	-1.79E+03	5.47E+03
NF	—	—	—	—
NS	-1.56E+03	3.98E+03	-1.50E+03	3.92E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-815. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

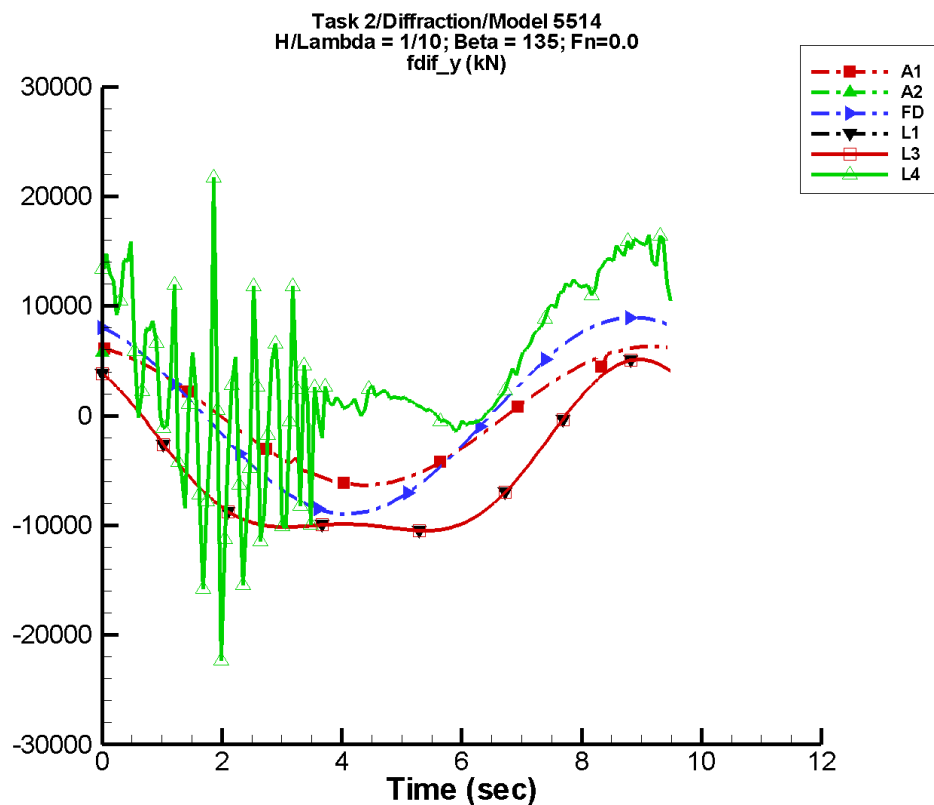
Table H-1629. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.37	4.19E+03	100	7.03	29
A2	-4.37	4.19E+03	100	7.03	29
FD	6.79E-02	5.97E+03	110	0.116	162
L1	-2.23E+03	5.00E+03	107	1.16E+03	128
L3	-2.23E+03	5.00E+03	107	1.16E+03	128
L4	1.47E+03	4.35E+03	113	2.34E+03	128
NF	—	—	—	—	—
NS	2.46E+03	3.77E+03	90	634.	-159

Table H-1630. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.21E+03	4.21E+03	-4.17E+03	4.17E+03
A2	-4.21E+03	4.21E+03	-4.17E+03	4.17E+03
FD	-5.97E+03	5.97E+03	-6.03E+03	5.90E+03
L1	-6.10E+03	3.94E+03	-6.10E+03	3.90E+03
L3	-6.10E+03	3.94E+03	-6.10E+03	3.90E+03
L4	-2.94E+03	8.49E+03	-2.31E+03	8.15E+03
NF	—	—	—	—
NS	-1.91E+03	6.12E+03	-1.84E+03	6.04E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-816. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

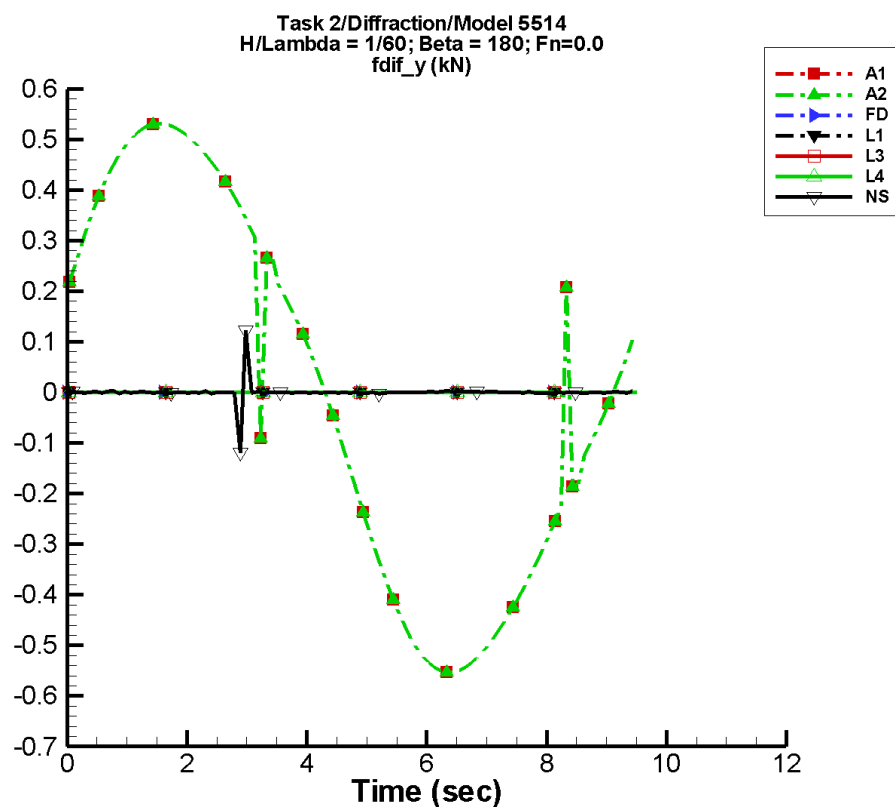
Table H-1631. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.57	6.30E+03	100	10.6	29
A2	-4.54E+04	2.22E+05	42	1.22E+05	-121
FD	0.102	8.96E+03	110	0.175	162
L1	-5.01E+03	7.49E+03	107	2.62E+03	128
L3	-5.01E+03	7.49E+03	107	2.62E+03	128
L4	4.04E+03	7.41E+03	126	4.90E+03	132
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1632. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.33E+03	6.32E+03	-6.26E+03	6.26E+03
A2	5.40E+03	5.73E+03	5.40E+03	5.73E+03
FD	-8.96E+03	8.95E+03	-9.05E+03	8.86E+03
L1	-1.05E+04	5.12E+03	-1.05E+04	5.05E+03
L3	-1.05E+04	5.12E+03	-1.05E+04	5.05E+03
L4	-2.46E+04	2.17E+04	-4.80E+03	1.57E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-817. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1633. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

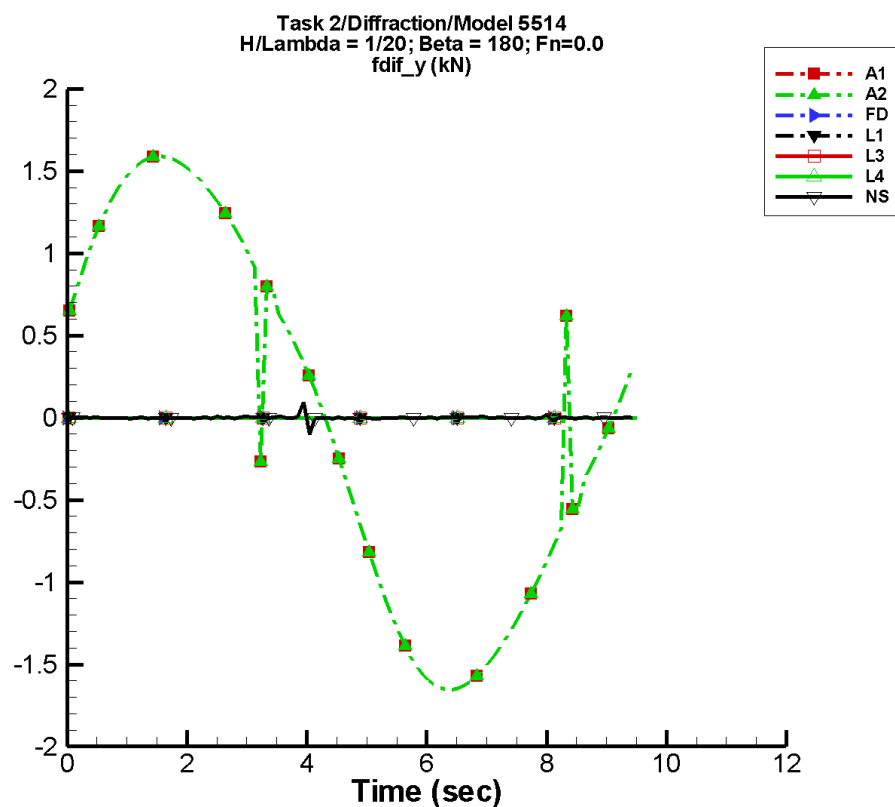
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.22E-03	0.527	18	2.69E-03	25
A2	-2.22E-03	0.527	18	2.69E-03	25
FD	-2.07E-09	6.00E-05	0	1.86E-09	-84
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	4.30E-05	3.26E-04	-176	1.61E-04	55

Table H-1634. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.553	0.566	-0.546	0.566
A2	-0.553	0.566	-0.546	0.566
FD	-5.99E-05	5.99E-05	-5.93E-05	5.93E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.119	0.122	-3.14E-03	3.25E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-818. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

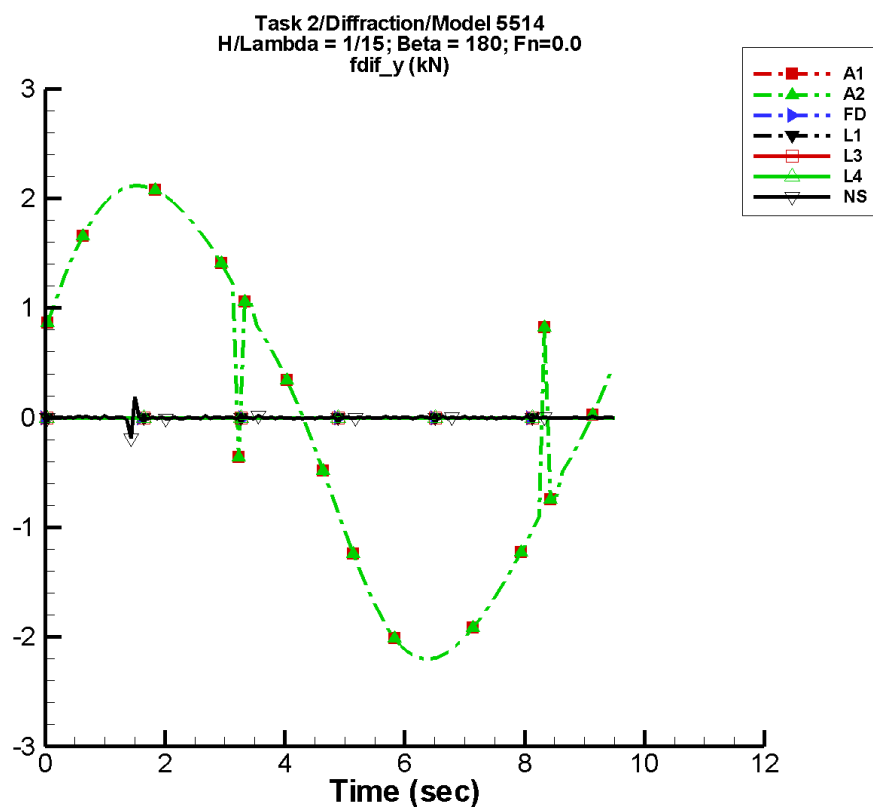
Table H-1635. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.65E-03	1.58	18	8.06E-03	25
A2	-6.65E-03	1.58	18	8.06E-03	25
FD	-6.22E-09	1.80E-04	0	5.58E-09	-84
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.08E-04	3.43E-04	34	1.13E-03	-137

Table H-1636. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.65	1.69	-1.63	1.69
A2	-1.65	1.69	-1.63	1.69
FD	-1.80E-04	1.80E-04	-1.78E-04	1.78E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.101	9.64E-02	-3.85E-03	4.24E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-819. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

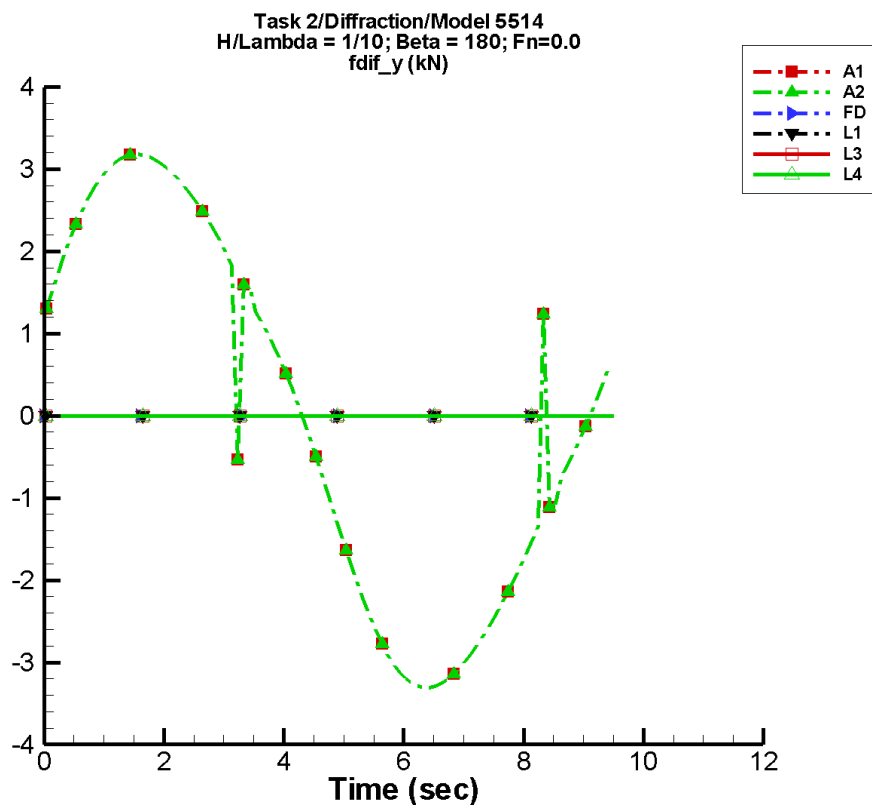
Table H-1637. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.86E-03	2.10	18	1.07E-02	25
A2	-8.86E-03	2.10	18	1.07E-02	25
FD	-8.26E-09	2.40E-04	0	7.45E-09	-84
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.33E-04	1.20E-03	111	1.31E-03	71

Table H-1638. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.20	2.26	-2.17	2.25
A2	-2.20	2.26	-2.17	2.25
FD	-2.40E-04	2.40E-04	-2.37E-04	2.37E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.186	0.194	-6.26E-03	5.34E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-820. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

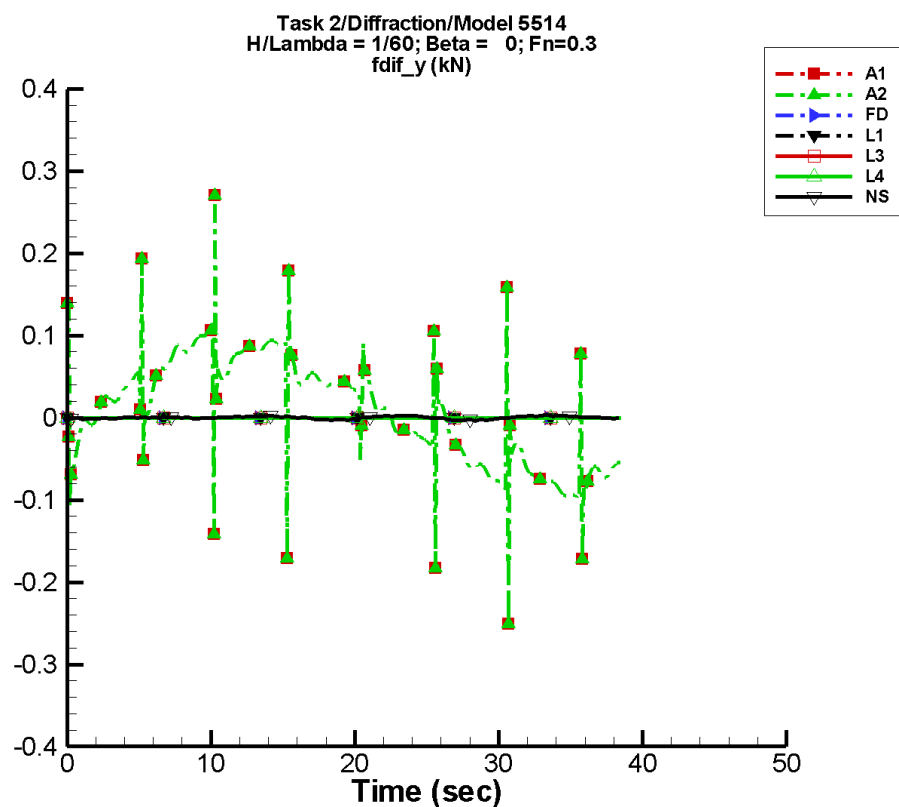
Table H-1639. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.33E-02	3.15	18	1.61E-02	25
A2	-1.33E-02	3.15	18	1.61E-02	25
FD	-1.25E-08	3.60E-04	0	1.12E-08	-84
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1640. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.31	3.39	-3.27	3.38
A2	-3.31	3.39	-3.27	3.38
FD	-3.60E-04	3.60E-04	-3.56E-04	3.56E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-821. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1641. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

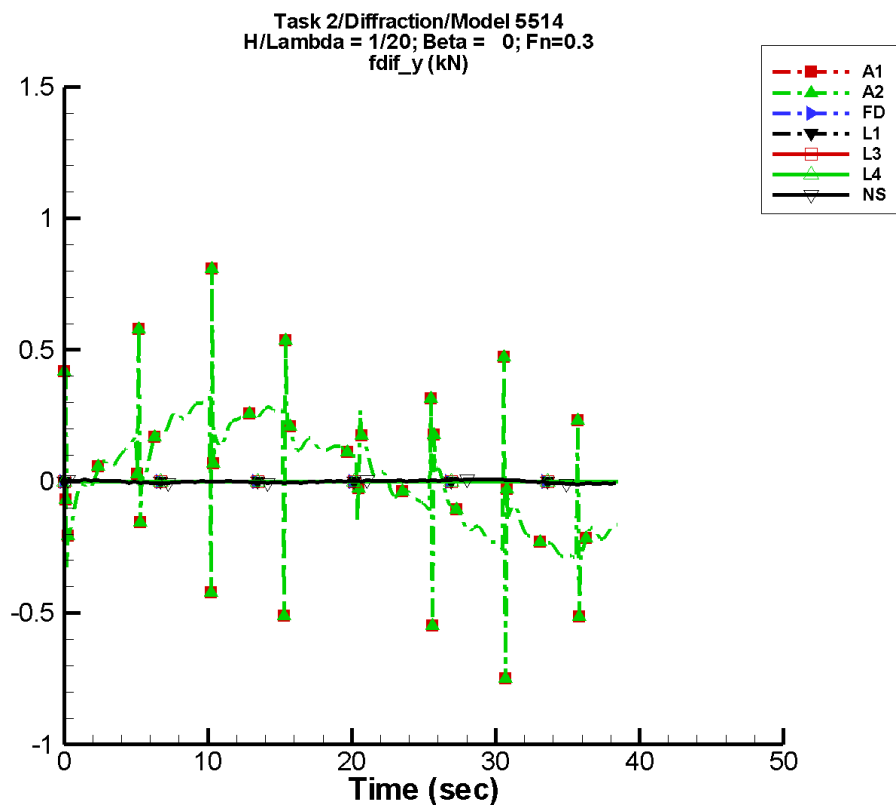
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.92E-04	7.58E-02	-32	9.59E-03	-67
A2	-4.92E-04	7.58E-02	-32	9.59E-03	-67
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-8.47E-05	8.24E-05	94	4.96E-04	165

Table H-1642. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.250	0.270	-9.57E-02	0.100
A2	-0.250	0.270	-9.57E-02	0.100
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.05E-03	2.99E-03	-2.76E-03	2.10E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-822. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

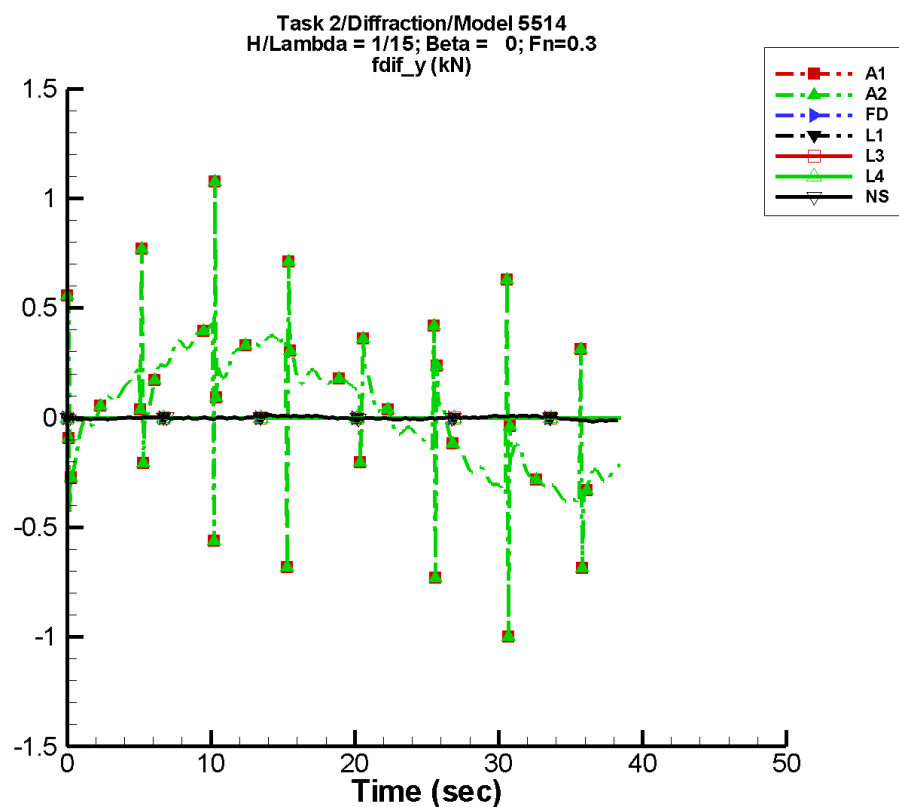
Table H-1643. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.47E-03	0.227	-32	2.87E-02	-67
A2	-1.47E-03	0.227	-32	2.87E-02	-67
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	4.46E-05	2.80E-03	-140	4.08E-03	-41

Table H-1644. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.749	0.808	-0.286	0.300
A2	-0.749	0.808	-0.286	0.300
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.11E-02	9.33E-03	-8.82E-03	7.98E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-823. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

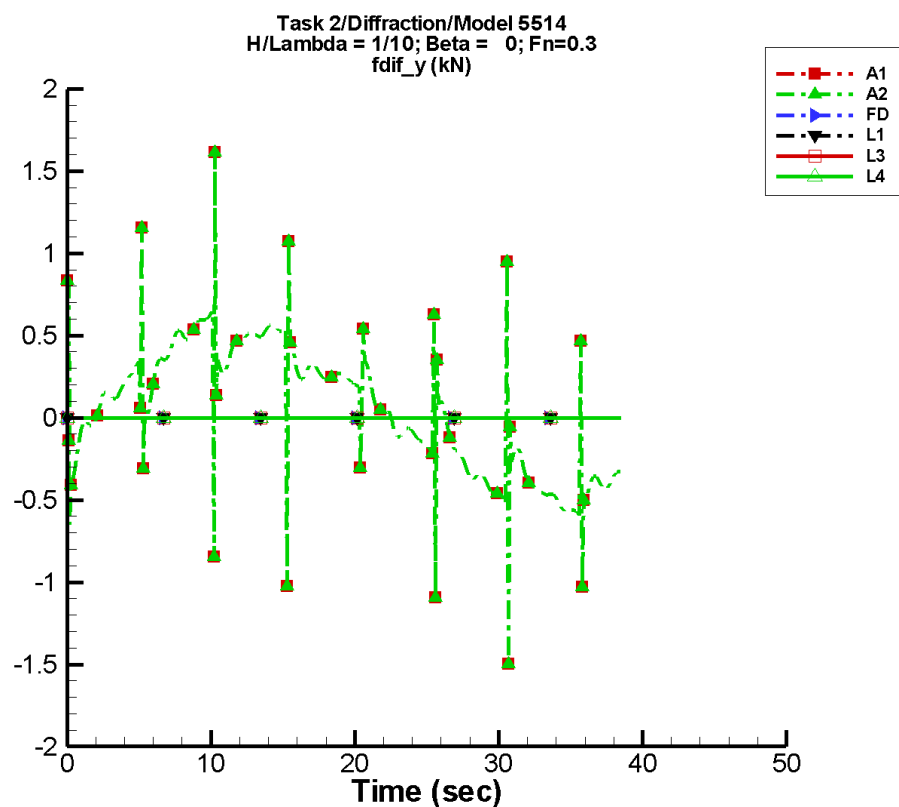
Table H-1645. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.96E-03	0.302	-32	3.82E-02	-67
A2	-1.96E-03	0.302	-32	3.82E-02	-67
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	9.14E-05	1.33E-03	-15	1.67E-03	-102

Table H-1646. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.998	1.08	-0.381	0.399
A2	-0.998	1.08	-0.381	0.399
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.76E-02	1.89E-02	-1.42E-02	1.68E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-824. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

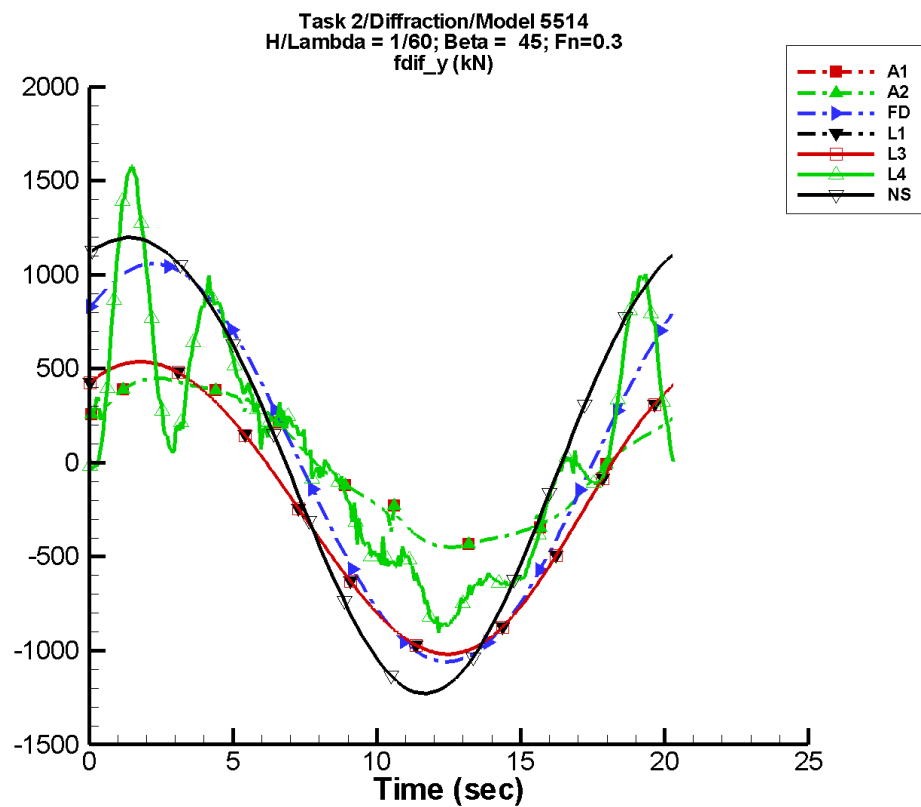
Table H-1647. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.95E-03	0.453	-32	5.74E-02	-67
A2	-2.95E-03	0.453	-32	5.74E-02	-67
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1648. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.50	1.62	-0.573	0.600
A2	-1.50	1.62	-0.573	0.600
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-825. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1649. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

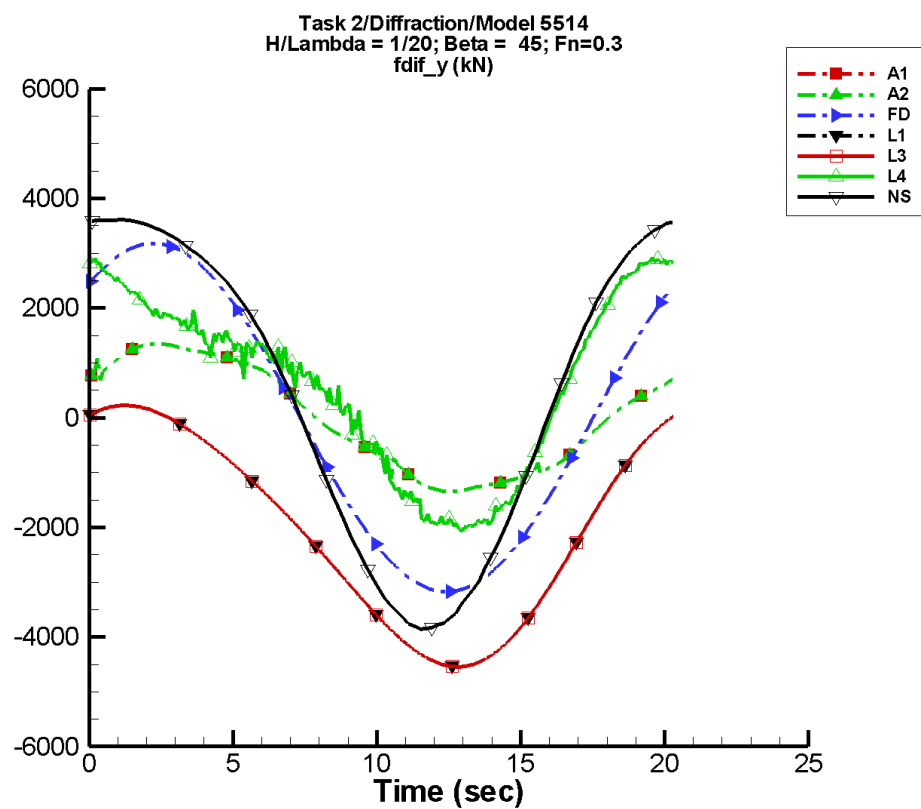
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.12	439.	29	1.90	10
A2	-1.12	439.	29	1.90	10
FD	-1.52	1.06E+03	39	1.64	2
L1	-227.	775.	50	32.3	125
L3	-227.	775.	50	32.3	125
L4	49.9	739.	46	80.3	145
NF	—	—	—	—	—
NS	47.0	1.21E+03	64	64.8	-154

Table H-1650. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-449.	449.	-447.	447.
A2	-449.	449.	-447.	447.
FD	-1.06E+03	1.06E+03	-1.06E+03	1.06E+03
L1	-1.02E+03	537.	-1.02E+03	536.
L3	-1.02E+03	537.	-1.02E+03	536.
L4	-904.	1.59E+03	-863.	1.53E+03
NF	—	—	—	—
NS	-1.23E+03	1.20E+03	-1.21E+03	1.19E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-826. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

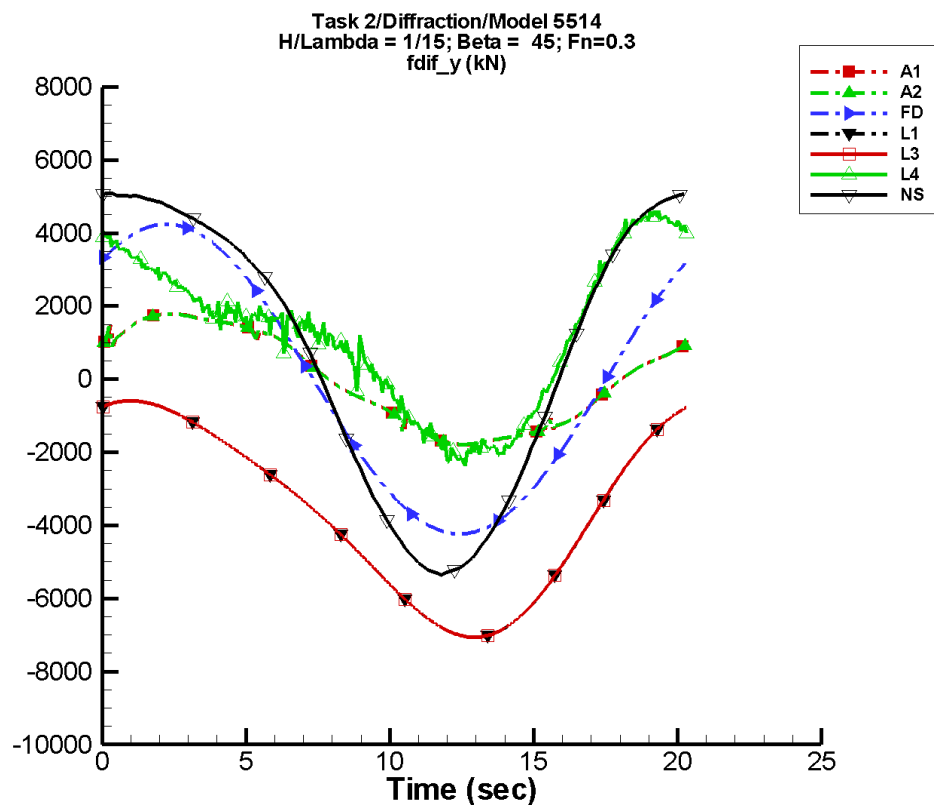
Table H-1651. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-3.36	1.31E+03	29	5.68	10
A2	-3.36	1.31E+03	29	5.68	10
FD	-4.55	3.18E+03	39	4.93	2
L1	-2.05E+03	2.33E+03	50	290.	125
L3	-2.05E+03	2.33E+03	50	290.	125
L4	627.	2.08E+03	56	798.	144
NF	—	—	—	—	—
NS	419.	3.72E+03	64	582.	-158

Table H-1652. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.34E+03	1.34E+03	-1.34E+03	1.34E+03
A2	-1.34E+03	1.34E+03	-1.34E+03	1.34E+03
FD	-3.18E+03	3.18E+03	-3.17E+03	3.17E+03
L1	-4.54E+03	226.	-4.54E+03	224.
L3	-4.54E+03	226.	-4.54E+03	224.
L4	-2.08E+03	2.93E+03	-2.01E+03	2.86E+03
NF	—	—	—	—
NS	-3.86E+03	3.61E+03	-3.79E+03	3.60E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-827. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

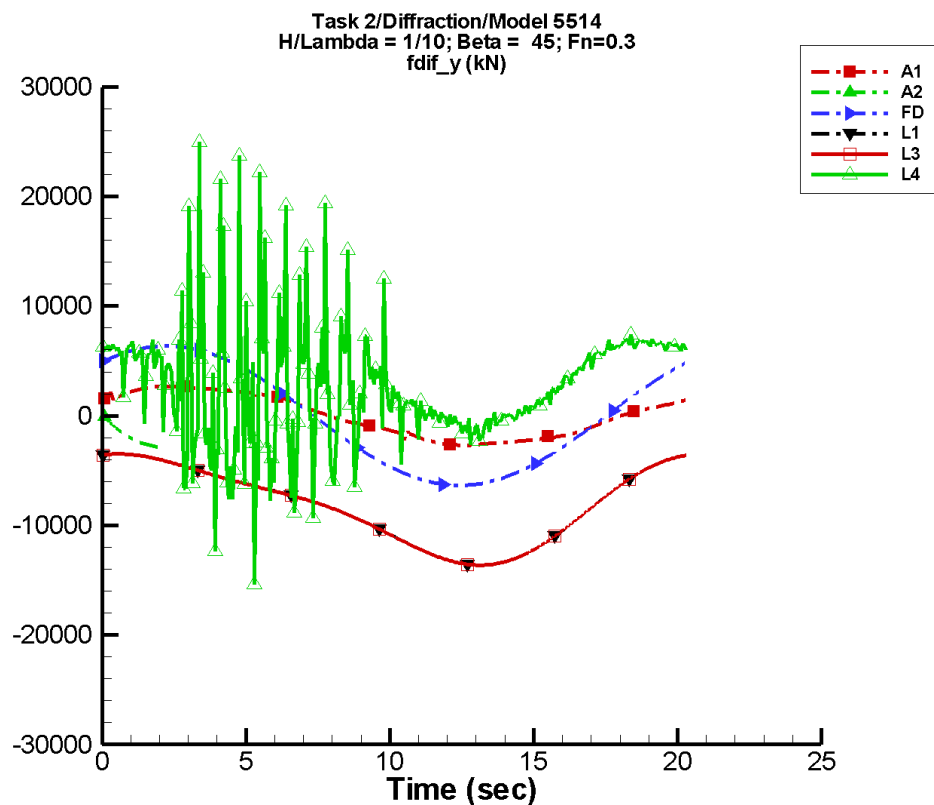
Table H-1653. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.47	1.75E+03	29	7.56	10
A2	-2.89	1.75E+03	33	5.32	20
FD	-6.06	4.23E+03	39	6.57	2
L1	-3.64E+03	3.10E+03	50	514.	125
L3	-3.64E+03	3.10E+03	50	514.	125
L4	1.24E+03	2.55E+03	64	1.23E+03	146
NF	—	—	—	—	—
NS	738.	5.13E+03	64	1.02E+03	-165

Table H-1654. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.79E+03	1.79E+03	-1.78E+03	1.78E+03
A2	-1.79E+03	1.79E+03	-1.78E+03	1.78E+03
FD	-4.24E+03	4.24E+03	-4.23E+03	4.23E+03
L1	-7.06E+03	-591.	-7.06E+03	-594.
L3	-7.06E+03	-591.	-7.06E+03	-594.
L4	-2.37E+03	4.61E+03	-2.16E+03	4.50E+03
NF	—	—	—	—
NS	-5.35E+03	5.10E+03	-5.26E+03	5.08E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-828. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

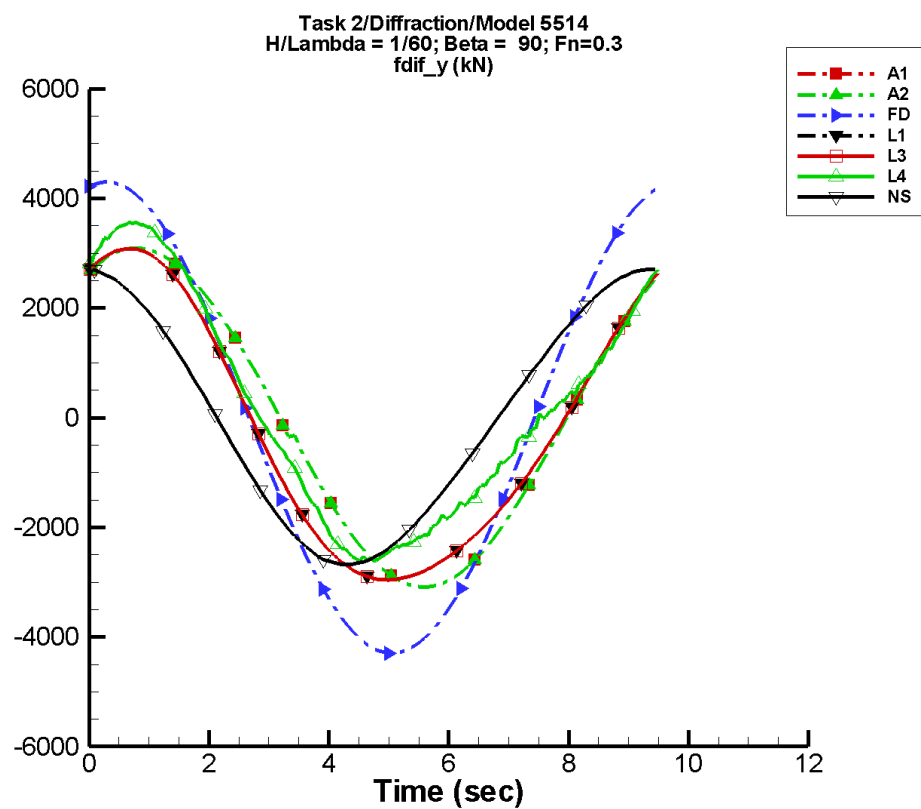
Table H-1655. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.71	2.63E+03	29	11.4	10
A2	7.65E+03	1.15E+04	-63	6.68E+03	159
FD	-9.09	6.35E+03	39	9.86	2
L1	-8.19E+03	4.65E+03	50	1.16E+03	125
L3	-8.19E+03	4.65E+03	50	1.16E+03	125
L4	2.75E+03	2.43E+03	85	2.16E+03	131
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1656. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.69E+03	2.69E+03	-2.68E+03	2.68E+03
A2	-2.88E+03	3.14E+03	-2.90E+03	3.10E+03
FD	-6.35E+03	6.35E+03	-6.34E+03	6.34E+03
L1	-1.36E+04	-3.48E+03	-1.36E+04	-3.49E+03
L3	-1.36E+04	-3.48E+03	-1.36E+04	-3.49E+03
L4	-1.95E+04	2.50E+04	-1.63E+03	6.72E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-829. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1657. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

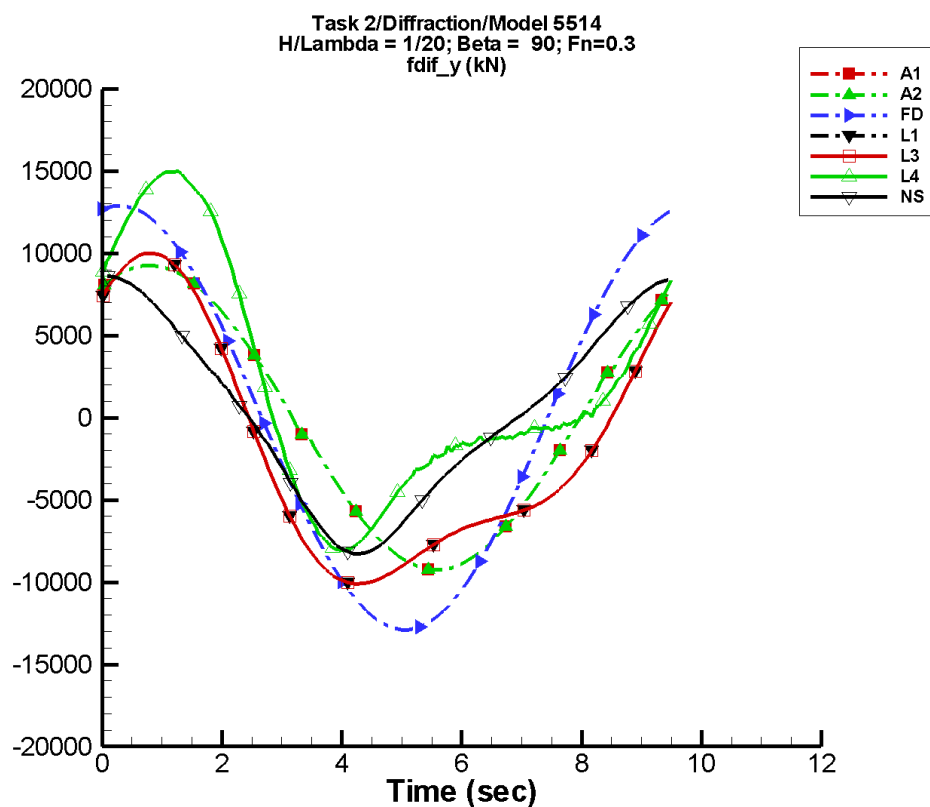
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.60	3.07E+03	54	5.55	33
A2	-1.60	3.07E+03	54	5.55	33
FD	-4.75E-02	4.30E+03	74	9.15E-02	-143
L1	-198.	2.99E+03	67	344.	6
L3	-198.	2.99E+03	67	344.	6
L4	224.	2.80E+03	68	472.	-11
NF	—	—	—	—	—
NS	39.9	2.65E+03	101	149.	14

Table H-1658. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.09E+03	3.10E+03	-3.06E+03	3.06E+03
A2	-3.09E+03	3.10E+03	-3.06E+03	3.06E+03
FD	-4.30E+03	4.30E+03	-4.25E+03	4.34E+03
L1	-2.96E+03	3.09E+03	-2.95E+03	3.07E+03
L3	-2.96E+03	3.09E+03	-2.95E+03	3.07E+03
L4	-2.63E+03	3.56E+03	-2.57E+03	3.53E+03
NF	—	—	—	—
NS	-2.68E+03	2.71E+03	-2.65E+03	2.68E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-830. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

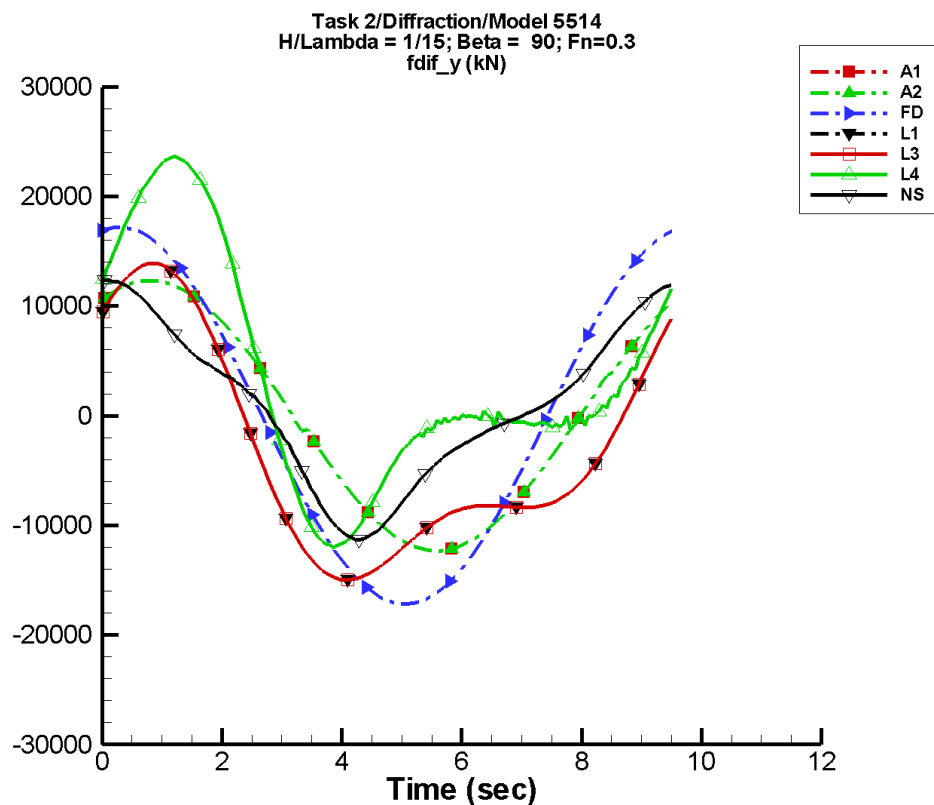
Table H-1659. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-4.78	9.18E+03	54	16.6	33
A2	-4.78	9.18E+03	54	16.6	33
FD	-0.142	1.29E+04	74	0.274	-143
L1	-1.77E+03	8.97E+03	67	3.09E+03	6
L3	-1.77E+03	8.97E+03	67	3.09E+03	6
L4	2.00E+03	8.58E+03	63	4.85E+03	-12
NF	—	—	—	—	—
NS	416.	7.42E+03	95	972.	5

Table H-1660. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-9.26E+03	9.26E+03	-9.15E+03	9.15E+03
A2	-9.26E+03	9.26E+03	-9.15E+03	9.15E+03
FD	-1.29E+04	1.29E+04	-1.27E+04	1.30E+04
L1	-1.01E+04	1.00E+04	-1.00E+04	9.93E+03
L3	-1.01E+04	1.00E+04	-1.00E+04	9.93E+03
L4	-8.10E+03	1.50E+04	-7.94E+03	1.48E+04
NF	—	—	—	—
NS	-8.27E+03	8.62E+03	-8.09E+03	8.60E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-831. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

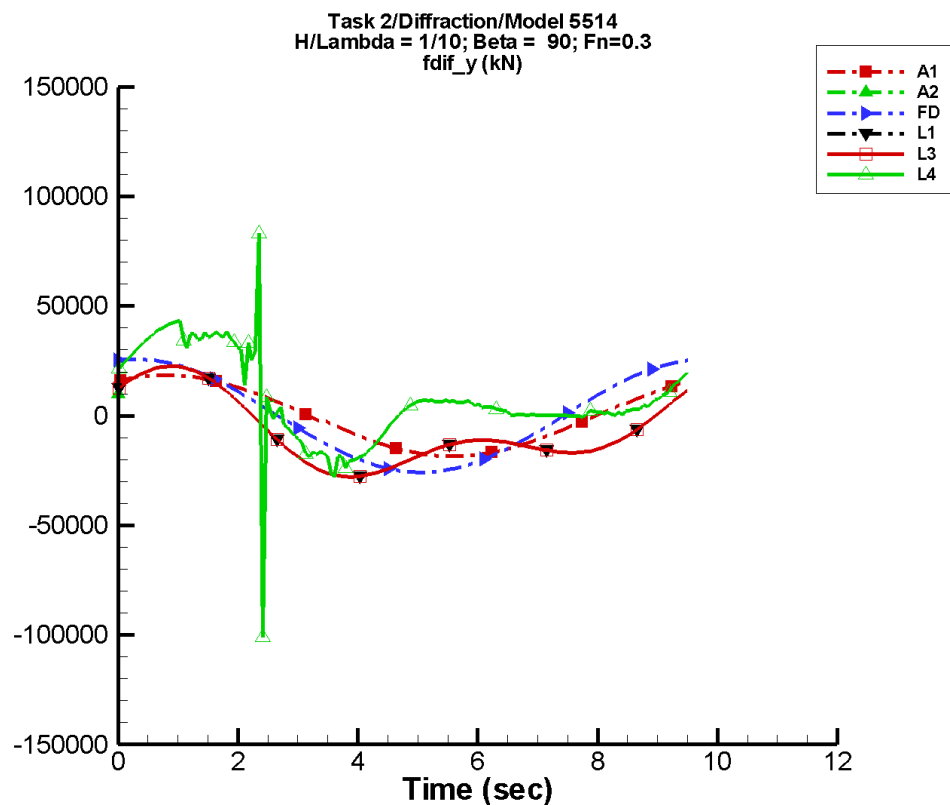
Table H-1661. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.36	1.22E+04	54	22.1	33
A2	-6.36	1.22E+04	54	22.1	33
FD	-0.190	1.72E+04	74	0.366	-143
L1	-3.14E+03	1.20E+04	67	5.50E+03	6
L3	-3.14E+03	1.20E+04	67	5.50E+03	6
L4	3.58E+03	1.17E+04	62	8.49E+03	-10
NF	—	—	—	—	—
NS	988.	9.51E+03	91	1.36E+03	3

Table H-1662. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.23E+04	1.23E+04	-1.22E+04	1.22E+04
A2	-1.23E+04	1.23E+04	-1.22E+04	1.22E+04
FD	-1.72E+04	1.72E+04	-1.70E+04	1.73E+04
L1	-1.50E+04	1.39E+04	-1.49E+04	1.38E+04
L3	-1.50E+04	1.39E+04	-1.49E+04	1.38E+04
L4	-1.20E+04	2.36E+04	-1.17E+04	2.33E+04
NF	—	—	—	—
NS	-1.13E+04	1.23E+04	-1.11E+04	1.24E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-832. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

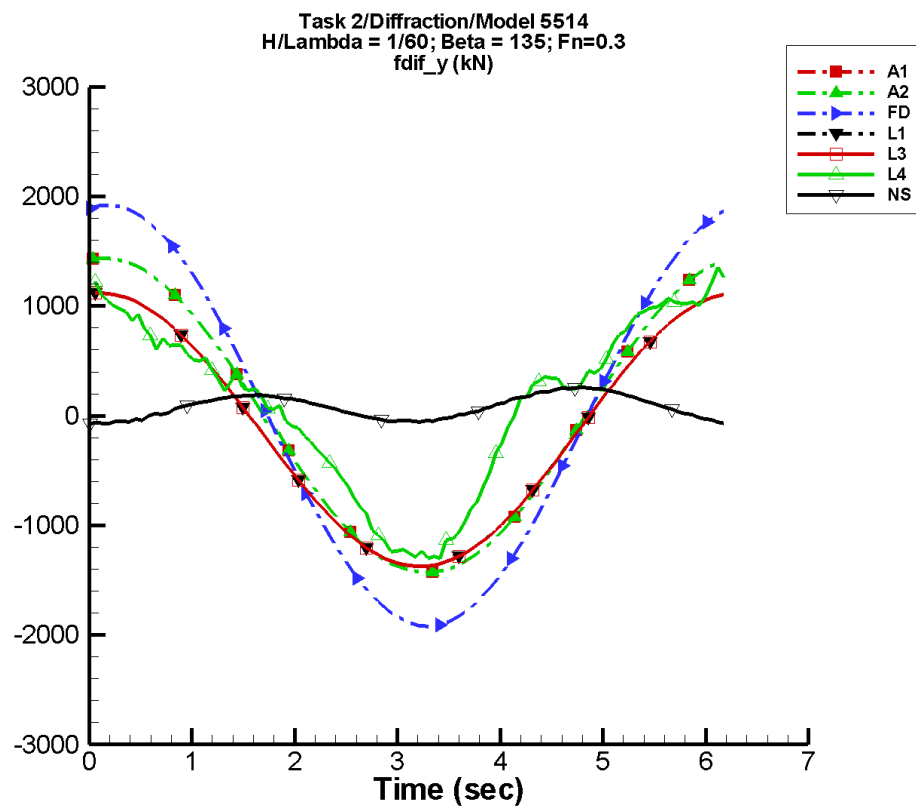
Table H-1663. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.56	1.84E+04	54	33.2	33
A2	2.61E+04	1.57E+04	-153	1.07E+04	15
FD	-0.284	2.58E+04	74	0.547	-143
L1	-7.07E+03	1.79E+04	67	1.24E+04	6
L3	-7.07E+03	1.79E+04	67	1.24E+04	6
L4	7.41E+03	1.68E+04	67	1.74E+04	2
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1664. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.85E+04	1.85E+04	-1.83E+04	1.83E+04
A2	9.70E+03	1.07E+04	9.70E+03	1.07E+04
FD	-2.58E+04	2.58E+04	-2.55E+04	2.60E+04
L1	-2.79E+04	2.25E+04	-2.77E+04	2.23E+04
L3	-2.79E+04	2.25E+04	-2.77E+04	2.23E+04
L4	-1.01E+05	8.74E+04	-2.16E+04	4.07E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-833. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1665. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

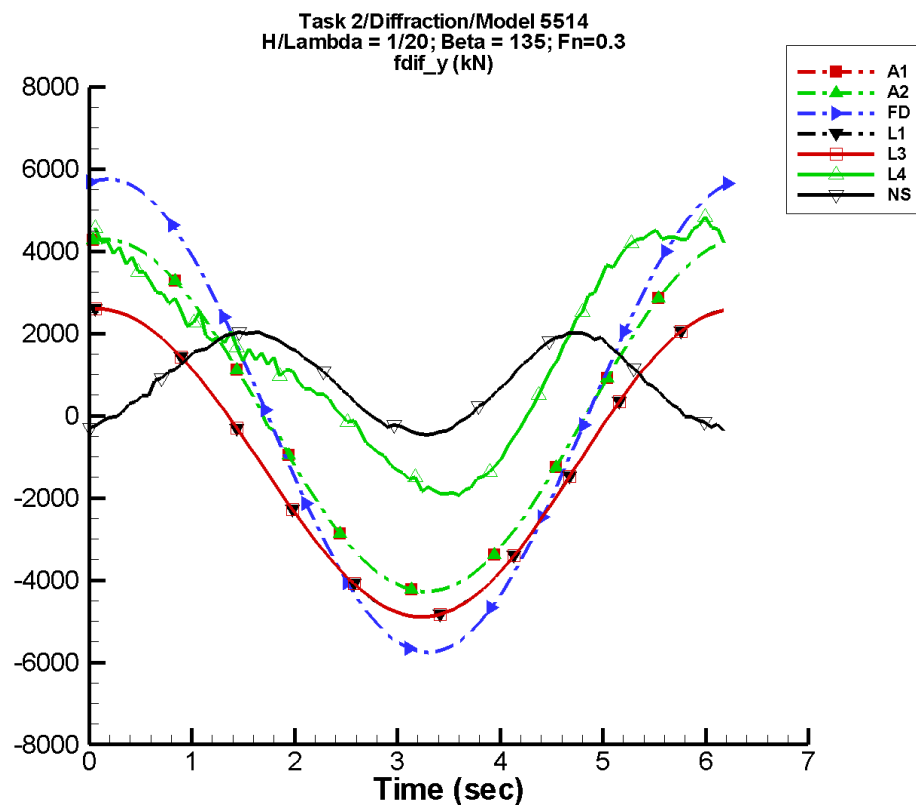
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.28	1.43E+03	74	4.59	146
A2	-2.28	1.43E+03	74	4.59	146
FD	-0.765	1.92E+03	58	1.33	93
L1	-127.	1.25E+03	74	4.12	154
L3	-127.	1.25E+03	74	4.11	154
L4	137.	1.06E+03	84	197.	-133
NF	—	—	—	—	—
NS	79.2	32.1	-180	141.	-99

Table H-1666. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.43E+03	1.44E+03	-1.39E+03	1.43E+03
A2	-1.43E+03	1.44E+03	-1.39E+03	1.43E+03
FD	-1.92E+03	1.92E+03	-1.87E+03	1.92E+03
L1	-1.37E+03	1.12E+03	-1.36E+03	1.12E+03
L3	-1.37E+03	1.12E+03	-1.36E+03	1.12E+03
L4	-1.30E+03	1.36E+03	-1.26E+03	1.20E+03
NF	—	—	—	—
NS	-77.1	260.	-72.1	248.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-834. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

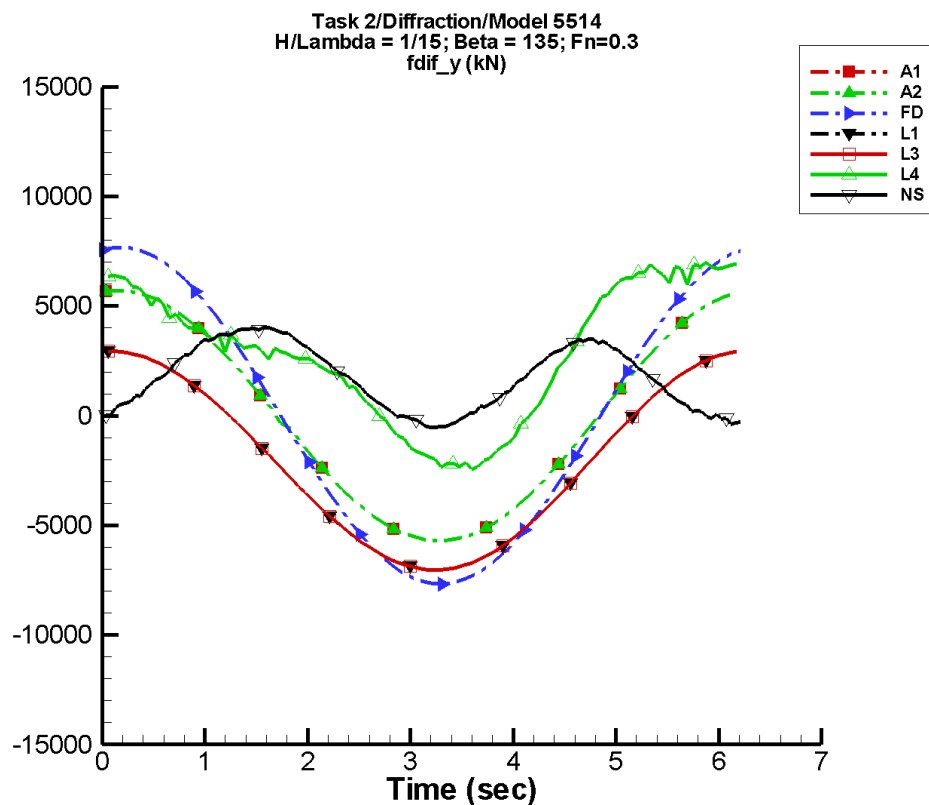
Table H-1667. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.83	4.29E+03	74	13.7	146
A2	-6.83	4.29E+03	74	13.7	146
FD	-2.29	5.76E+03	58	3.98	93
L1	-1.13E+03	3.74E+03	74	43.6	167
L3	-1.13E+03	3.74E+03	74	43.7	167
L4	1.57E+03	2.96E+03	82	794.	171
NF	—	—	—	—	—
NS	809.	191.	44	1.16E+03	-94

Table H-1668. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-4.28E+03	4.30E+03	-4.17E+03	4.29E+03
A2	-4.28E+03	4.30E+03	-4.17E+03	4.29E+03
FD	-5.76E+03	5.76E+03	-5.61E+03	5.77E+03
L1	-4.89E+03	2.60E+03	-4.86E+03	2.59E+03
L3	-4.89E+03	2.60E+03	-4.86E+03	2.59E+03
L4	-1.94E+03	4.84E+03	-1.84E+03	4.50E+03
NF	—	—	—	—
NS	-461.	2.05E+03	-397.	2.00E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-835. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

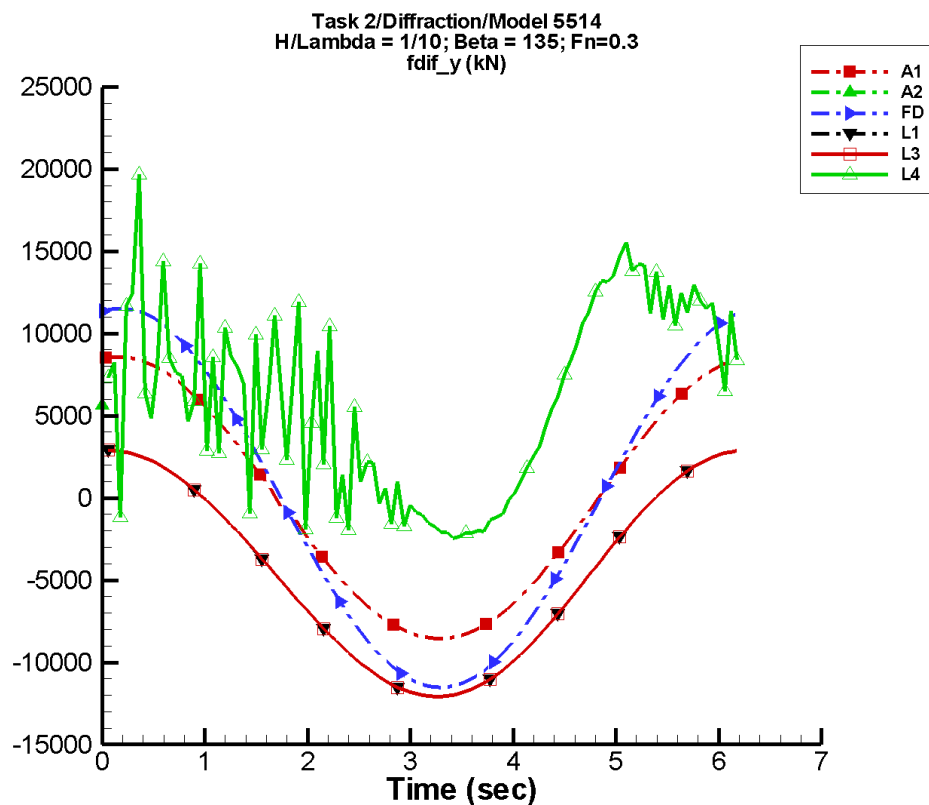
Table H-1669. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-9.09	5.71E+03	74	18.3	146
A2	-9.09	5.71E+03	74	18.3	146
FD	-3.06	7.68E+03	58	5.31	93
L1	-2.01E+03	4.99E+03	74	79.3	169
L3	-2.01E+03	4.99E+03	74	79.4	169
L4	2.89E+03	4.05E+03	81	1.42E+03	-180
NF	—	—	—	—	—
NS	1.72E+03	612.	27	1.92E+03	-88

Table H-1670. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.69E+03	5.73E+03	-5.55E+03	5.71E+03
A2	-5.69E+03	5.73E+03	-5.55E+03	5.71E+03
FD	-7.68E+03	7.68E+03	-7.48E+03	7.69E+03
L1	-7.03E+03	2.95E+03	-6.98E+03	2.95E+03
L3	-7.03E+03	2.95E+03	-6.98E+03	2.95E+03
L4	-2.46E+03	6.96E+03	-2.24E+03	6.77E+03
NF	—	—	—	—
NS	-529.	4.01E+03	-434.	3.97E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-836. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

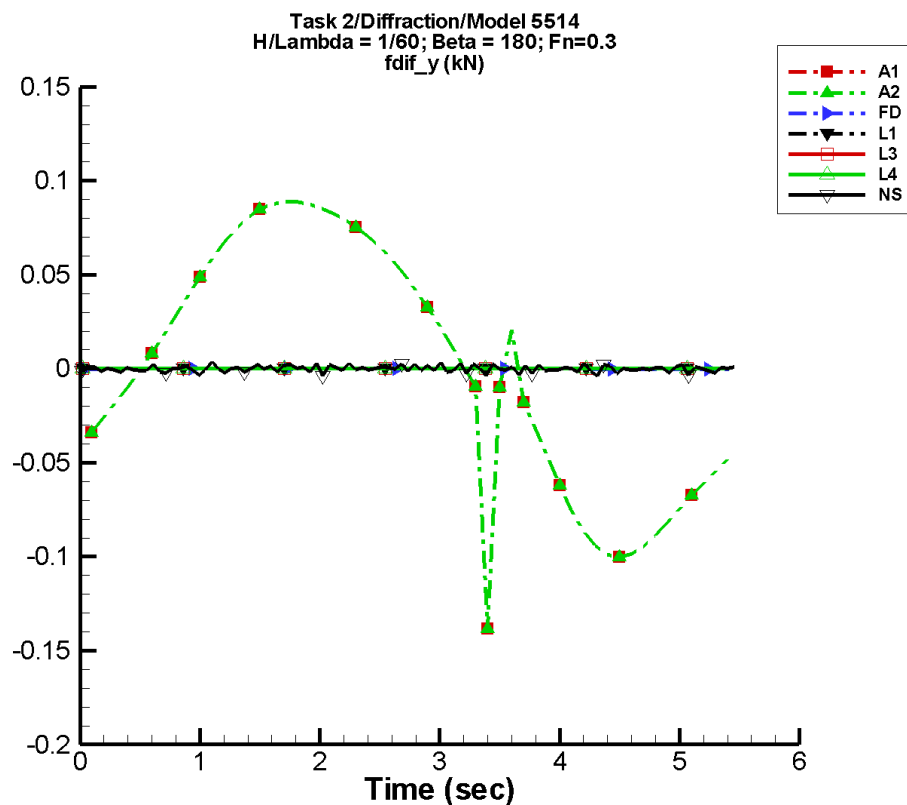
Table H-1671. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-13.7	8.58E+03	74	27.5	146
A2	7.49E+03	3.59E+03	67	3.99E+03	21
FD	-4.59	1.15E+04	58	7.96	93
L1	-4.52E+03	7.48E+03	74	182.	170
L3	-4.52E+03	7.48E+03	74	183.	170
L4	5.98E+03	6.13E+03	91	3.08E+03	-153
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1672. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.55E+03	8.61E+03	-8.34E+03	8.57E+03
A2	4.96E+03	5.63E+03	4.96E+03	5.63E+03
FD	-1.15E+04	1.15E+04	-1.12E+04	1.15E+04
L1	-1.21E+04	2.90E+03	-1.20E+04	2.89E+03
L3	-1.21E+04	2.90E+03	-1.20E+04	2.89E+03
L4	-2.43E+03	1.96E+04	-2.13E+03	1.40E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-837. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1673. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

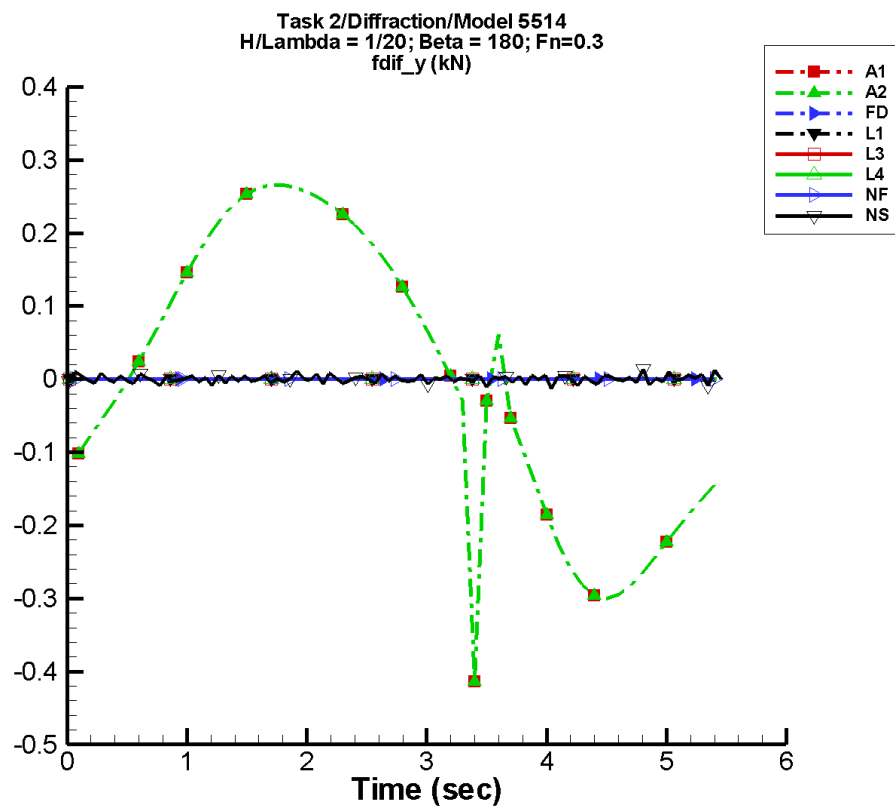
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-2.03E-04	8.81E-02	-26	1.52E-03	-71
A2	-2.03E-04	8.81E-02	-26	1.52E-03	-71
FD	-2.23E-07	6.94E-05	32	2.06E-07	-33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-3.94E-05	3.84E-04	-65	2.36E-04	152

Table H-1674. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.138	8.88E-02	-9.26E-02	8.55E-02
A2	-0.138	8.88E-02	-9.26E-02	8.55E-02
FD	-6.93E-05	6.93E-05	-6.73E-05	6.69E-05
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.01E-03	3.58E-03	-1.12E-03	5.69E-04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-838. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

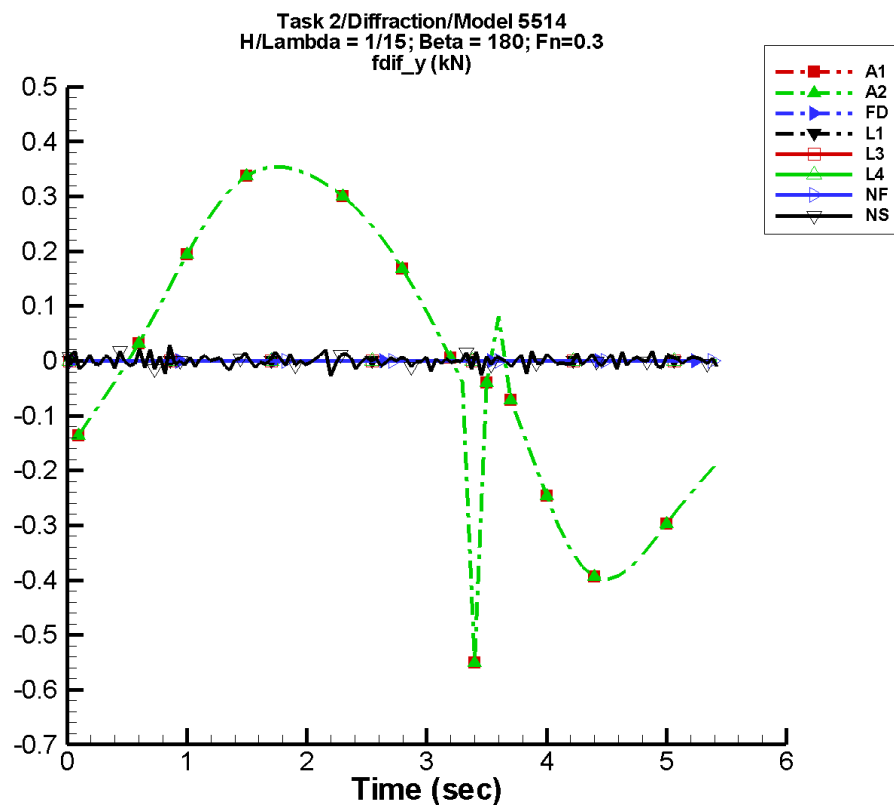
Table H-1675. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-6.07E-04	0.264	-26	4.55E-03	-71
A2	-6.07E-04	0.264	-26	4.55E-03	-71
FD	-6.69E-07	2.08E-04	32	6.19E-07	-33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.17E-04	3.66E-04	86	1.07E-03	147

Table H-1676. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.414	0.266	-0.277	0.256
A2	-0.414	0.266	-0.277	0.256
FD	-2.08E-04	2.08E-04	-2.02E-04	2.01E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.33E-02	1.36E-02	-1.37E-03	2.56E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-839. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

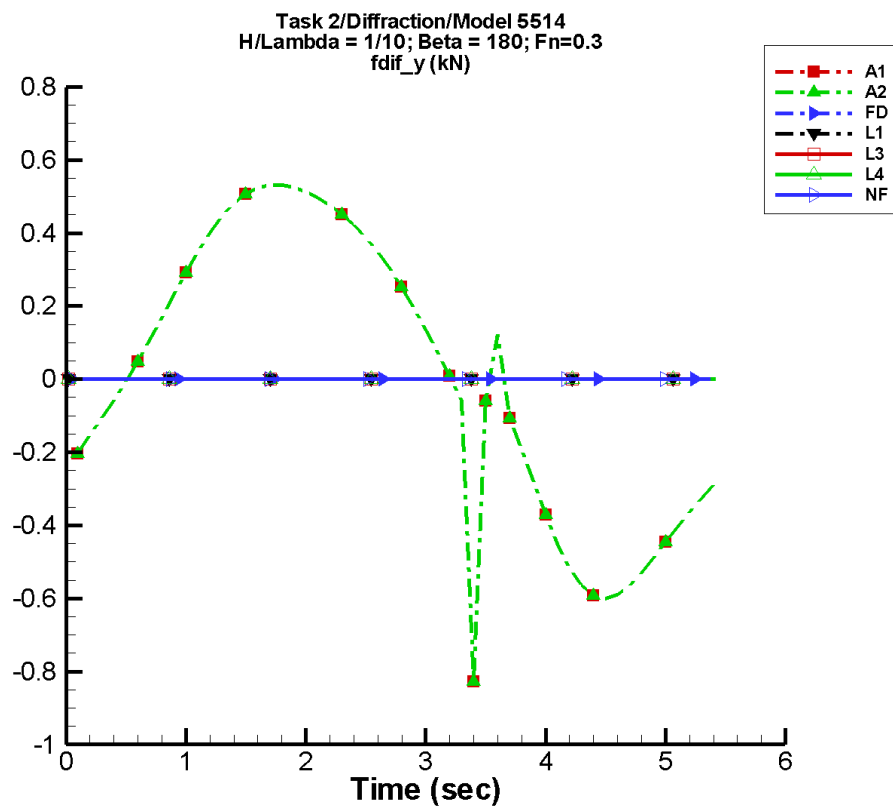
Table H-1677. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-8.09E-04	0.351	-26	6.05E-03	-71
A2	-8.09E-04	0.351	-26	6.05E-03	-71
FD	-8.92E-07	2.77E-04	32	8.26E-07	-33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.29E-04	6.81E-04	92	1.10E-03	-179

Table H-1678. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.551	0.354	-0.369	0.340
A2	-0.551	0.354	-0.369	0.340
FD	-2.77E-04	2.77E-04	-2.69E-04	2.68E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.70E-02	2.91E-02	-2.23E-03	4.34E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-840. Time history of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

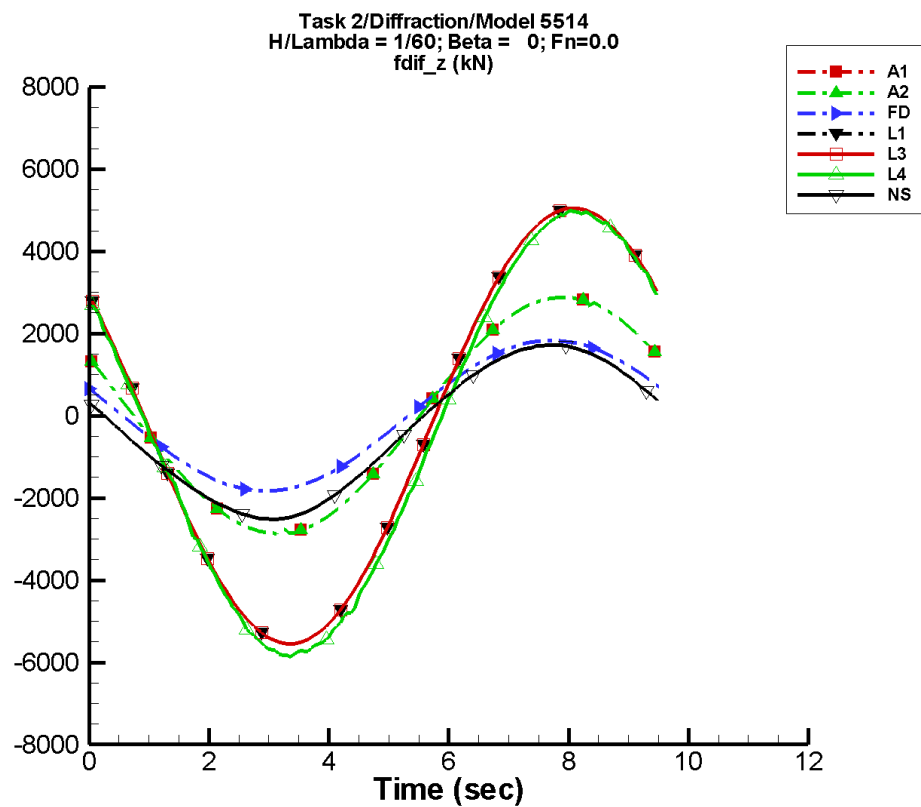
Table H-1679. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-1.21E-03	0.527	-26	9.09E-03	-71
A2	-1.21E-03	0.527	-26	9.09E-03	-71
FD	-1.34E-06	4.16E-04	32	1.24E-06	-33
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1680. Minimum and maximum of  $F_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-0.828	0.531	-0.554	0.511
A2	-0.828	0.531	-0.554	0.511
FD	-4.16E-04	4.16E-04	-4.04E-04	4.02E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-841. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1681. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

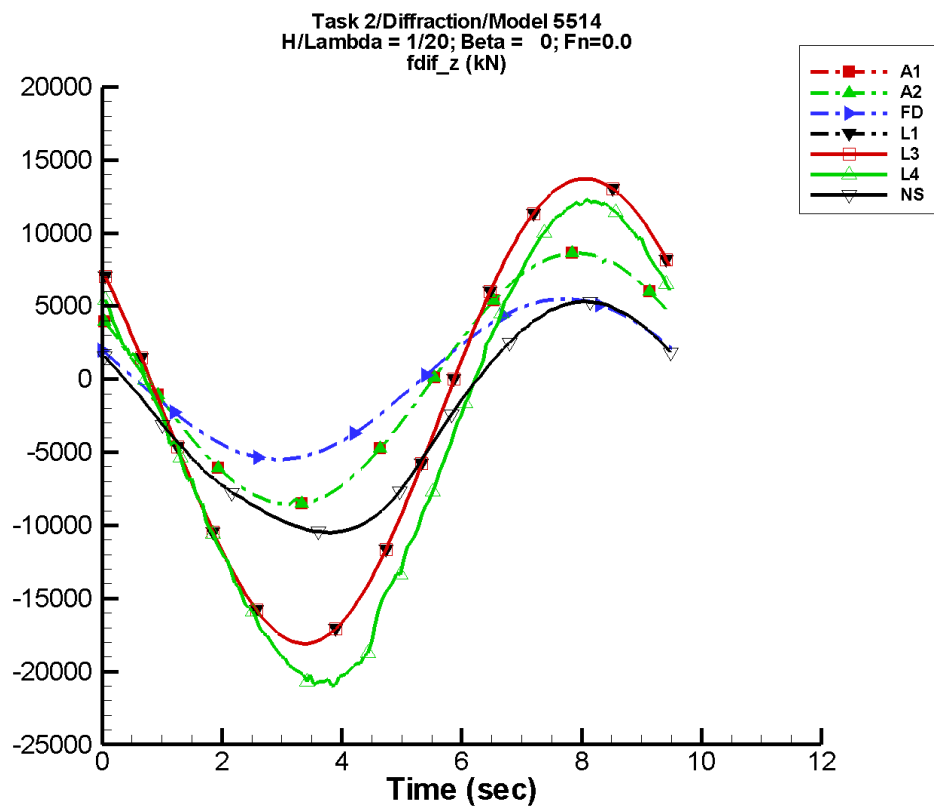
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.45	2.88E+03	147	2.43	-177
A2	5.45	2.88E+03	147	2.43	-177
FD	5.62E-02	1.83E+03	153	5.09E-02	113
L1	-218.	5.30E+03	140	41.8	-21
L3	-218.	5.30E+03	140	41.8	-21
L4	-424.	5.36E+03	139	43.1	-46
NF	—	—	—	—	—
NS	-390.	2.09E+03	159	36.9	-45

Table H-1682. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.87E+03	2.88E+03	-2.82E+03	2.84E+03
A2	-2.87E+03	2.88E+03	-2.82E+03	2.84E+03
FD	-1.83E+03	1.83E+03	-1.81E+03	1.81E+03
L1	-5.55E+03	5.05E+03	-5.52E+03	5.03E+03
L3	-5.55E+03	5.05E+03	-5.52E+03	5.03E+03
L4	-5.86E+03	4.99E+03	-5.79E+03	4.93E+03
NF	—	—	—	—
NS	-2.52E+03	1.72E+03	-2.49E+03	1.70E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-842. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

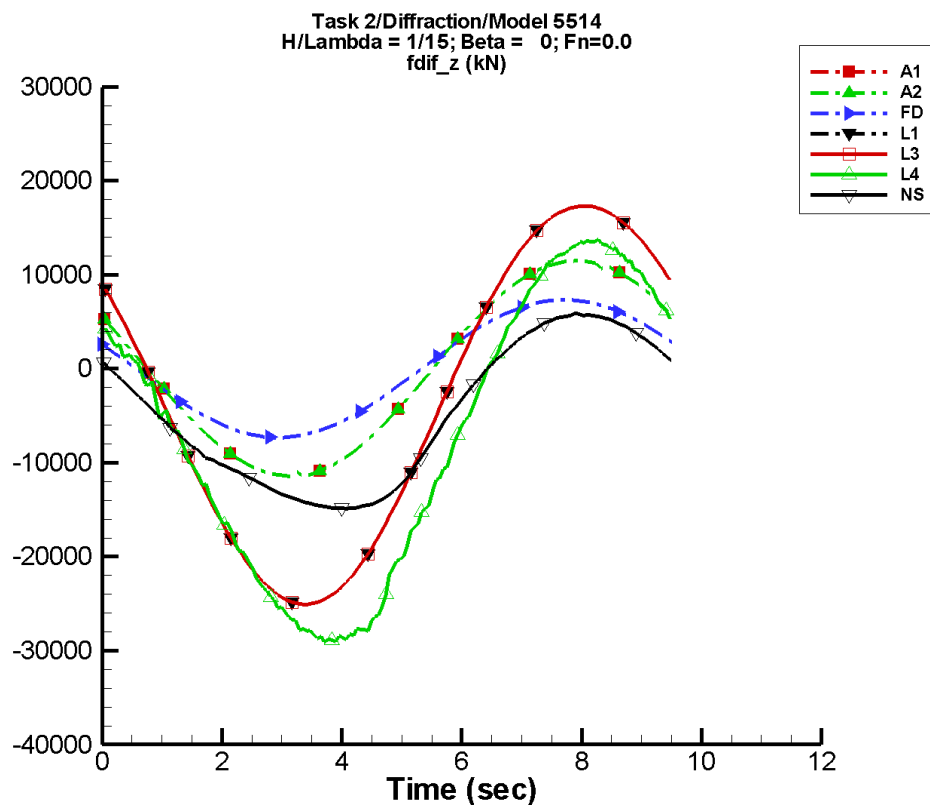
Table H-1683. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	16.3	8.62E+03	147	7.28	-177
A2	16.3	8.62E+03	147	7.28	-177
FD	0.168	5.50E+03	153	0.153	114
L1	-1.92E+03	1.59E+04	140	356.	-26
L3	-1.92E+03	1.59E+04	140	356.	-26
L4	-4.01E+03	1.60E+04	135	920.	-69
NF	—	—	—	—	—
NS	-2.82E+03	7.93E+03	142	567.	-106

Table H-1684. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.57E+03	8.62E+03	-8.45E+03	8.51E+03
A2	-8.57E+03	8.62E+03	-8.45E+03	8.51E+03
FD	-5.50E+03	5.50E+03	-5.44E+03	5.44E+03
L1	-1.81E+04	1.37E+04	-1.80E+04	1.36E+04
L3	-1.81E+04	1.37E+04	-1.80E+04	1.36E+04
L4	-2.10E+04	1.23E+04	-2.07E+04	1.21E+04
NF	—	—	—	—
NS	-1.05E+04	5.31E+03	-1.04E+04	5.21E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-843. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

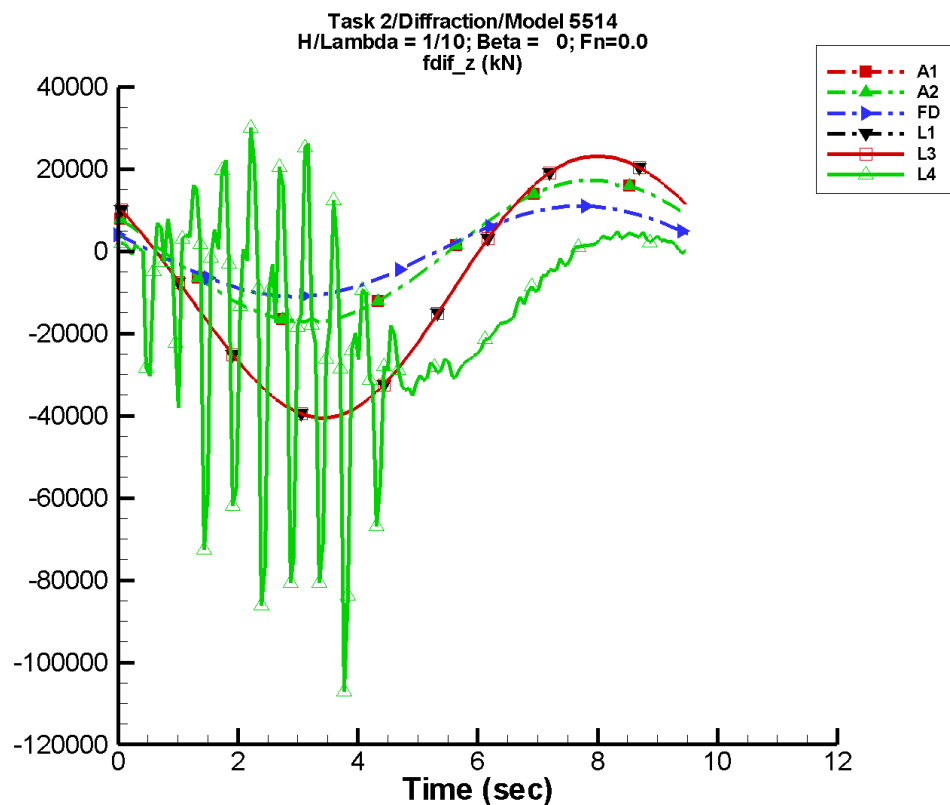
Table H-1685. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	21.7	1.15E+04	147	9.69	-177
A2	21.7	1.15E+04	147	9.69	-177
FD	0.225	7.33E+03	153	0.204	113
L1	-3.41E+03	2.12E+04	140	630.	-26
L3	-3.41E+03	2.12E+04	140	630.	-26
L4	-7.36E+03	2.05E+04	131	1.73E+03	-79
NF	—	—	—	—	—
NS	-4.96E+03	1.03E+04	141	1.26E+03	-107

Table H-1686. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.14E+04	1.15E+04	-1.13E+04	1.13E+04
A2	-1.14E+04	1.15E+04	-1.13E+04	1.13E+04
FD	-7.33E+03	7.33E+03	-7.25E+03	7.25E+03
L1	-2.51E+04	1.73E+04	-2.50E+04	1.72E+04
L3	-2.51E+04	1.73E+04	-2.50E+04	1.72E+04
L4	-2.91E+04	1.38E+04	-2.87E+04	1.35E+04
NF	—	—	—	—
NS	-1.49E+04	5.87E+03	-1.48E+04	5.70E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-844. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

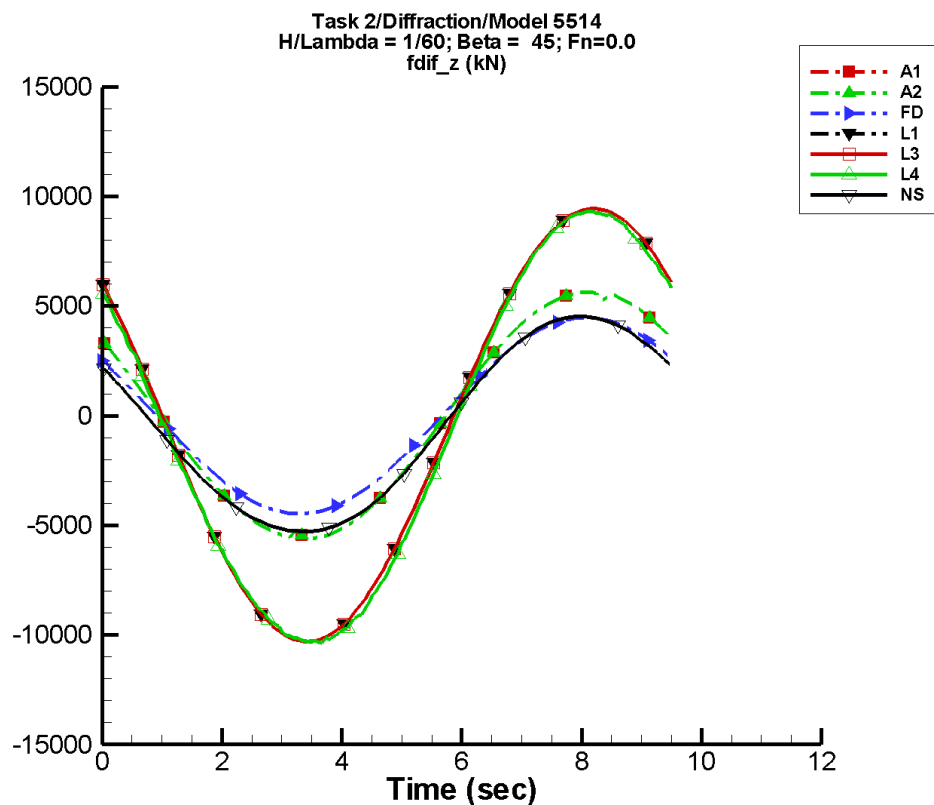
Table H-1687. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	32.6	1.72E+04	147	14.6	-177
A2	32.6	1.72E+04	147	14.6	-177
FD	0.337	1.10E+04	153	0.305	114
L1	-7.64E+03	3.18E+04	140	1.41E+03	-27
L3	-7.64E+03	3.18E+04	140	1.41E+03	-27
L4	-1.42E+04	1.78E+04	105	3.17E+03	-123
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1688. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.71E+04	1.72E+04	-1.69E+04	1.70E+04
A2	-1.71E+04	1.72E+04	-1.69E+04	1.70E+04
FD	-1.10E+04	1.10E+04	-1.09E+04	1.09E+04
L1	-4.06E+04	2.31E+04	-4.04E+04	2.30E+04
L3	-4.06E+04	2.31E+04	-4.04E+04	2.30E+04
L4	-1.07E+05	3.00E+04	-3.71E+04	3.86E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-845. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1689. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

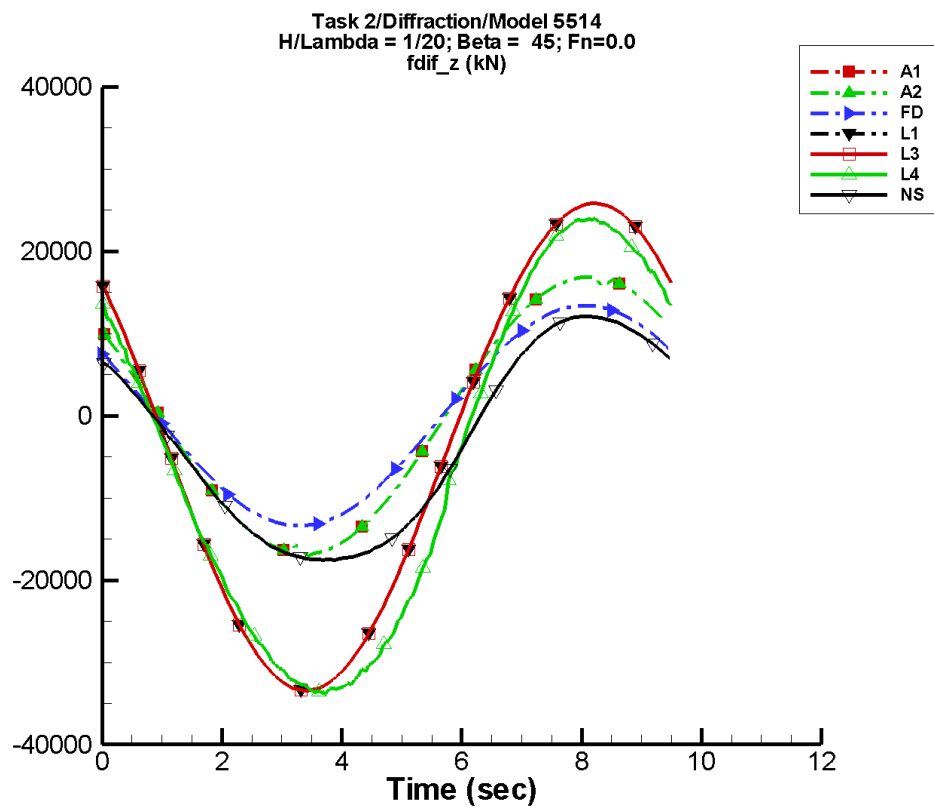
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	10.3	5.64E+03	139	2.07	-173
A2	10.3	5.64E+03	139	2.07	-173
FD	0.117	4.47E+03	140	0.112	125
L1	-391.	9.88E+03	137	46.7	34
L3	-391.	9.88E+03	137	46.7	34
L4	-597.	9.82E+03	136	184.	-115
NF	—	—	—	—	—
NS	-478.	4.95E+03	146	130.	-109

Table H-1690. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.73E+03	5.63E+03	-5.51E+03	5.53E+03
A2	-5.73E+03	5.63E+03	-5.51E+03	5.53E+03
FD	-4.47E+03	4.47E+03	-4.42E+03	4.42E+03
L1	-1.03E+04	9.44E+03	-1.03E+04	9.41E+03
L3	-1.03E+04	9.44E+03	-1.03E+04	9.41E+03
L4	-1.04E+04	9.33E+03	-1.03E+04	9.26E+03
NF	—	—	—	—
NS	-5.29E+03	4.53E+03	-5.24E+03	4.47E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-846. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

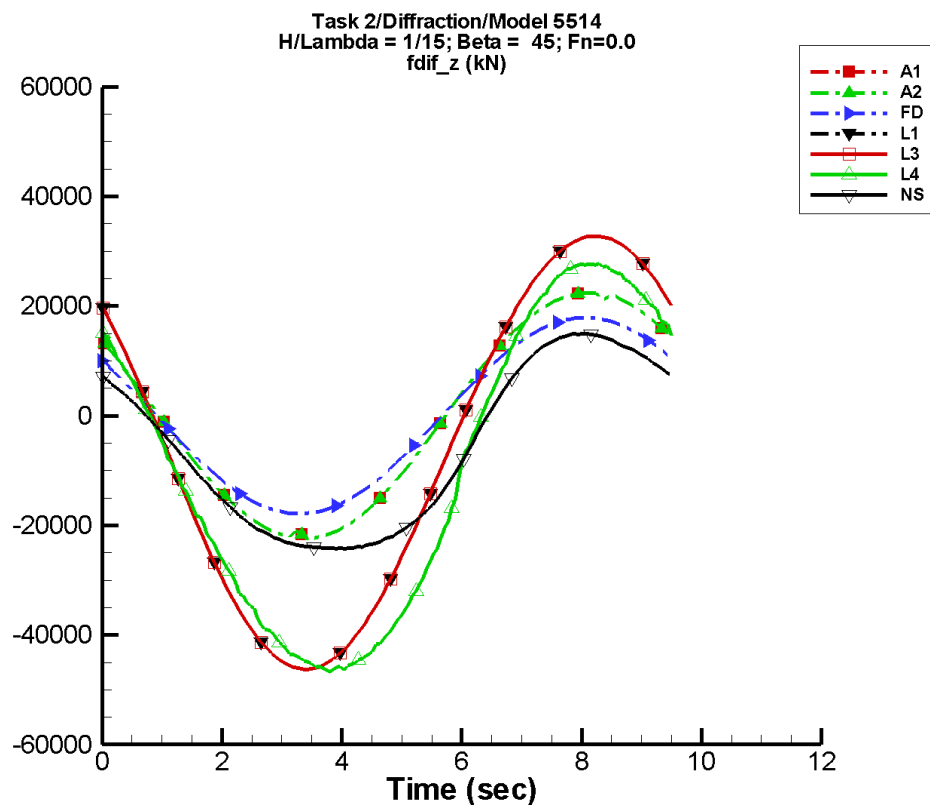
Table H-1691. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	30.8	1.69E+04	139	6.20	-173
A2	30.8	1.69E+04	139	6.20	-173
FD	0.351	1.34E+04	140	0.337	125
L1	-3.49E+03	2.96E+04	137	402.	40
L3	-3.49E+03	2.96E+04	137	402.	40
L4	-5.45E+03	2.89E+04	133	1.67E+03	-113
NF	—	—	—	—	—
NS	-3.38E+03	1.52E+04	134	1.01E+03	-122

Table H-1692. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.71E+04	1.68E+04	-1.65E+04	1.65E+04
A2	-1.71E+04	1.68E+04	-1.65E+04	1.65E+04
FD	-1.34E+04	1.34E+04	-1.33E+04	1.33E+04
L1	-3.34E+04	2.58E+04	-3.33E+04	2.57E+04
L3	-3.34E+04	2.58E+04	-3.33E+04	2.57E+04
L4	-3.38E+04	2.40E+04	-3.34E+04	2.38E+04
NF	—	—	—	—
NS	-1.75E+04	1.21E+04	-1.74E+04	1.19E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-847. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

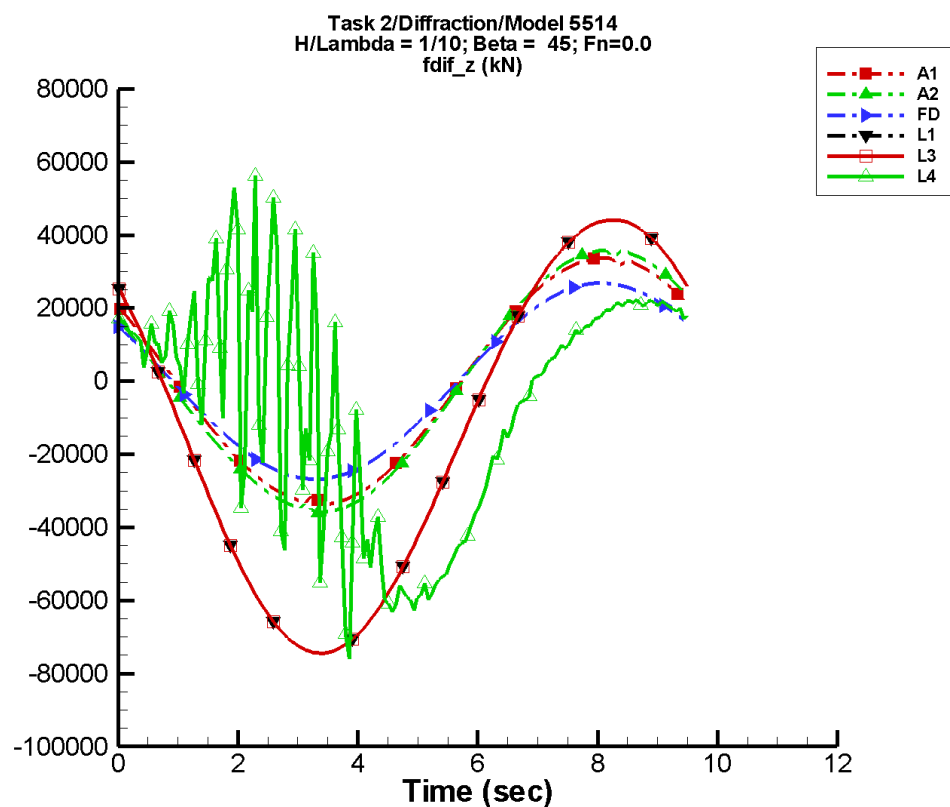
Table H-1693. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	41.0	2.25E+04	139	8.25	-173
A2	41.0	2.25E+04	139	8.25	-173
FD	0.470	1.79E+04	140	0.448	125
L1	-6.19E+03	3.95E+04	137	711.	41
L3	-6.19E+03	3.95E+04	137	711.	41
L4	-9.88E+03	3.73E+04	130	2.75E+03	-112
NF	—	—	—	—	—
NS	-6.01E+03	2.02E+04	132	1.95E+03	-126

Table H-1694. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.28E+04	2.24E+04	-2.20E+04	2.20E+04
A2	-2.28E+04	2.24E+04	-2.20E+04	2.20E+04
FD	-1.79E+04	1.79E+04	-1.77E+04	1.77E+04
L1	-4.63E+04	3.28E+04	-4.61E+04	3.26E+04
L3	-4.63E+04	3.28E+04	-4.61E+04	3.26E+04
L4	-4.67E+04	2.78E+04	-4.61E+04	2.76E+04
NF	—	—	—	—
NS	-2.43E+04	1.50E+04	-2.42E+04	1.48E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-848. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

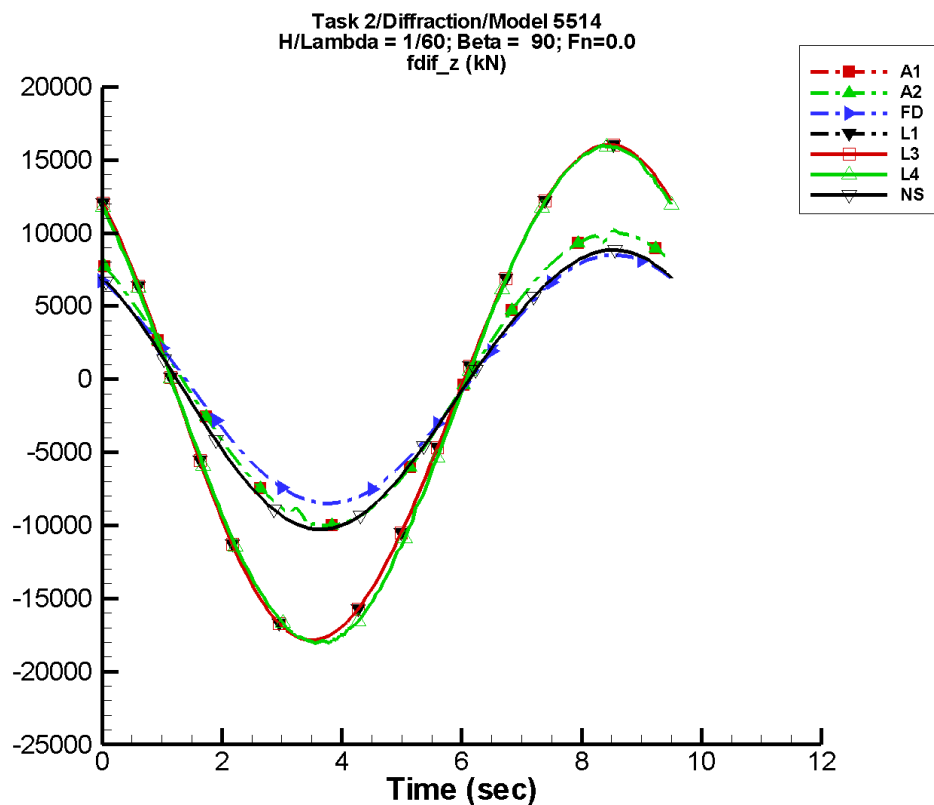
Table H-1695. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	61.7	3.38E+04	139	12.4	-173
A2	-359.	3.58E+04	143	665.	-138
FD	0.701	2.68E+04	140	0.675	125
L1	-1.39E+04	5.93E+04	137	1.59E+03	42
L3	-1.39E+04	5.93E+04	137	1.59E+03	42
L4	-6.55E+03	3.46E+04	82	1.70E+04	-118
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1696. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.43E+04	3.37E+04	-3.30E+04	3.31E+04
A2	-3.62E+04	3.61E+04	-3.52E+04	3.52E+04
FD	-2.68E+04	2.68E+04	-2.65E+04	2.65E+04
L1	-7.45E+04	4.41E+04	-7.42E+04	4.39E+04
L3	-7.45E+04	4.41E+04	-7.42E+04	4.39E+04
L4	-7.58E+04	5.62E+04	-6.01E+04	2.26E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-849. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1697. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

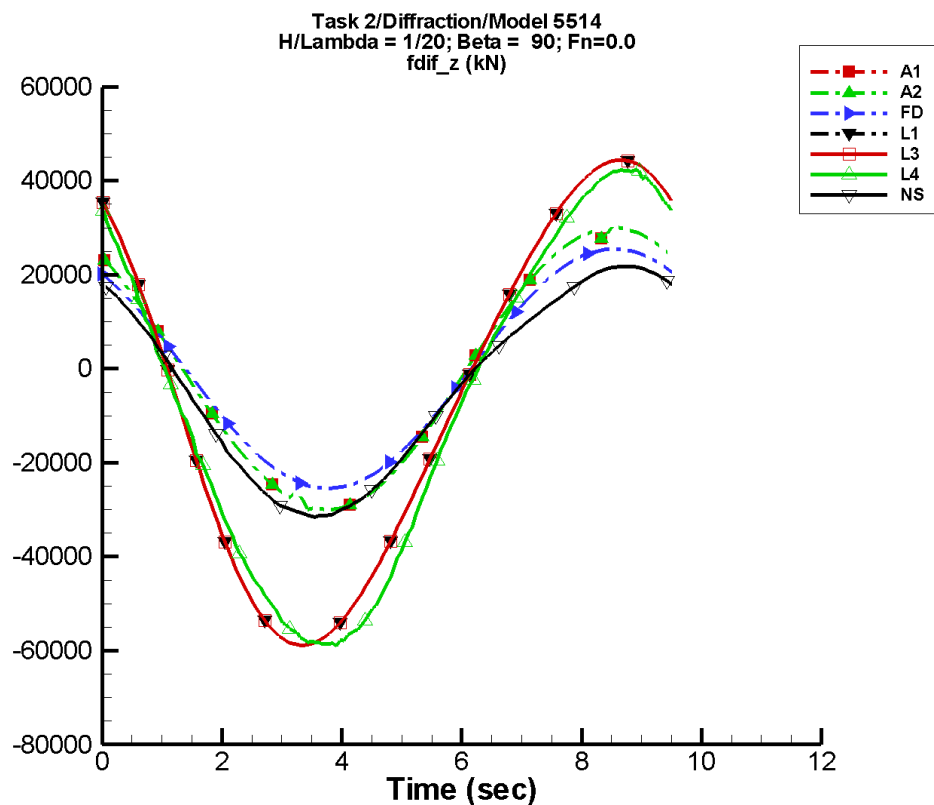
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	21.1	1.00E+04	125	2.51	-16
A2	21.1	1.00E+04	125	2.51	-16
FD	0.152	8.50E+03	122	0.182	145
L1	-665.	1.69E+04	131	565.	68
L3	-665.	1.69E+04	131	565.	68
L4	-864.	1.69E+04	130	175.	40
NF	—	—	—	—	—
NS	-579.	9.53E+03	131	256.	44

Table H-1698. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.00E+04	1.02E+04	-9.88E+03	9.82E+03
A2	-1.00E+04	1.02E+04	-9.88E+03	9.82E+03
FD	-8.50E+03	8.49E+03	-8.41E+03	8.40E+03
L1	-1.79E+04	1.60E+04	-1.78E+04	1.60E+04
L3	-1.79E+04	1.60E+04	-1.78E+04	1.60E+04
L4	-1.80E+04	1.60E+04	-1.79E+04	1.59E+04
NF	—	—	—	—
NS	-1.03E+04	8.83E+03	-1.02E+04	8.73E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-850. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

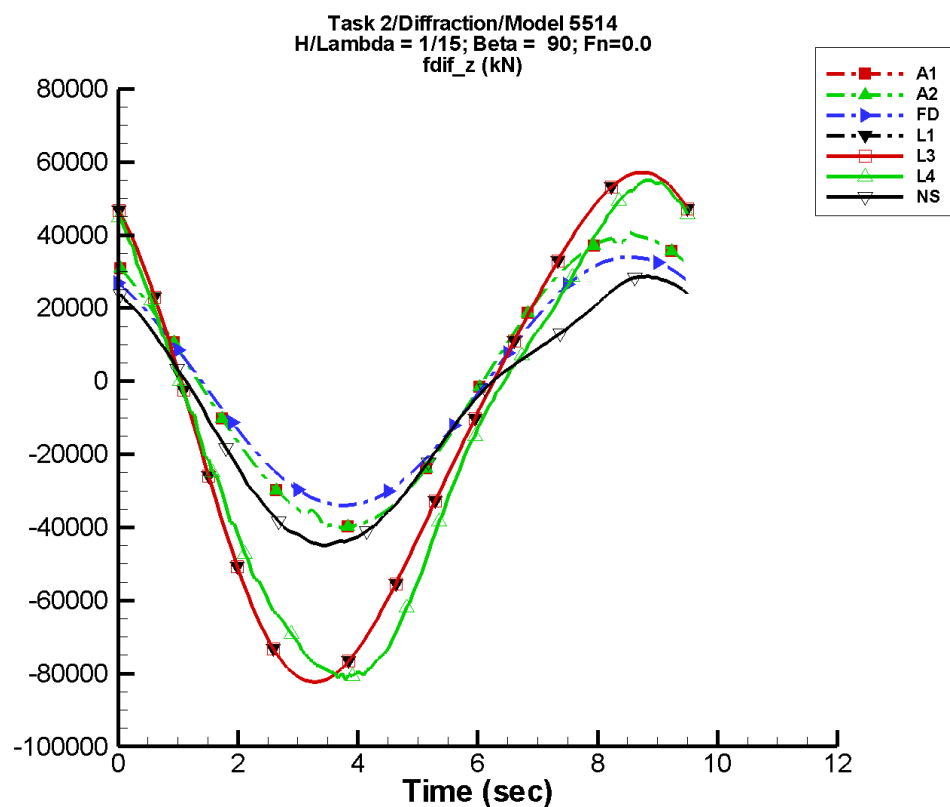
Table H-1699. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	63.0	2.99E+04	125	7.51	-16
A2	63.0	2.99E+04	125	7.51	-16
FD	0.455	2.55E+04	122	0.541	145
L1	-5.93E+03	5.06E+04	131	4.98E+03	70
L3	-5.93E+03	5.06E+04	131	4.98E+03	70
L4	-7.92E+03	4.89E+04	128	2.33E+03	46
NF	—	—	—	—	—
NS	-3.95E+03	2.60E+04	130	2.29E+03	48

Table H-1700. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.00E+04	3.06E+04	-2.96E+04	2.94E+04
A2	-3.00E+04	3.06E+04	-2.96E+04	2.94E+04
FD	-2.55E+04	2.55E+04	-2.52E+04	2.52E+04
L1	-5.89E+04	4.44E+04	-5.86E+04	4.42E+04
L3	-5.89E+04	4.44E+04	-5.86E+04	4.42E+04
L4	-5.91E+04	4.23E+04	-5.85E+04	4.21E+04
NF	—	—	—	—
NS	-3.15E+04	2.18E+04	-3.10E+04	2.15E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-851. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

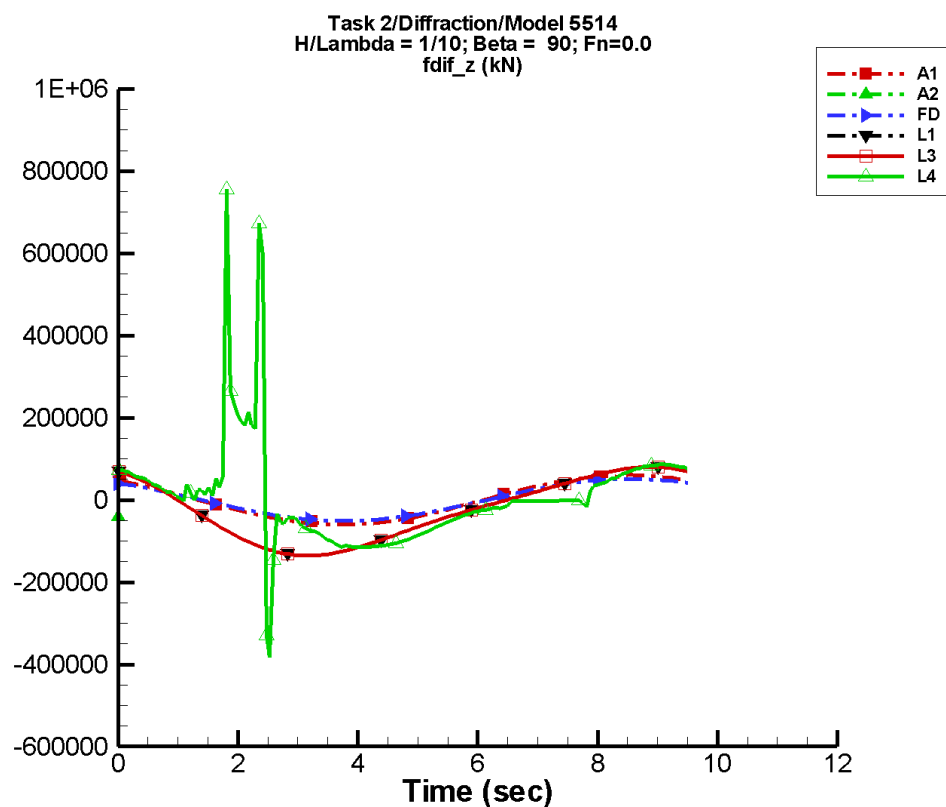
Table H-1701. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	83.9	3.99E+04	125	10.0	-16
A2	83.9	3.99E+04	125	10.0	-16
FD	0.608	3.40E+04	122	0.727	145
L1	-1.05E+04	6.74E+04	131	8.83E+03	70
L3	-1.05E+04	6.74E+04	131	8.83E+03	70
L4	-1.39E+04	6.38E+04	125	4.96E+03	52
NF	—	—	—	—	—
NS	-7.03E+03	3.50E+04	130	4.70E+03	52

Table H-1702. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.99E+04	4.08E+04	-3.94E+04	3.91E+04
A2	-3.99E+04	4.08E+04	-3.94E+04	3.91E+04
FD	-3.40E+04	3.40E+04	-3.37E+04	3.36E+04
L1	-8.23E+04	5.71E+04	-8.20E+04	5.68E+04
L3	-8.23E+04	5.71E+04	-8.20E+04	5.68E+04
L4	-8.17E+04	5.50E+04	-8.04E+04	5.43E+04
NF	—	—	—	—
NS	-4.50E+04	2.87E+04	-4.44E+04	2.83E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-852. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

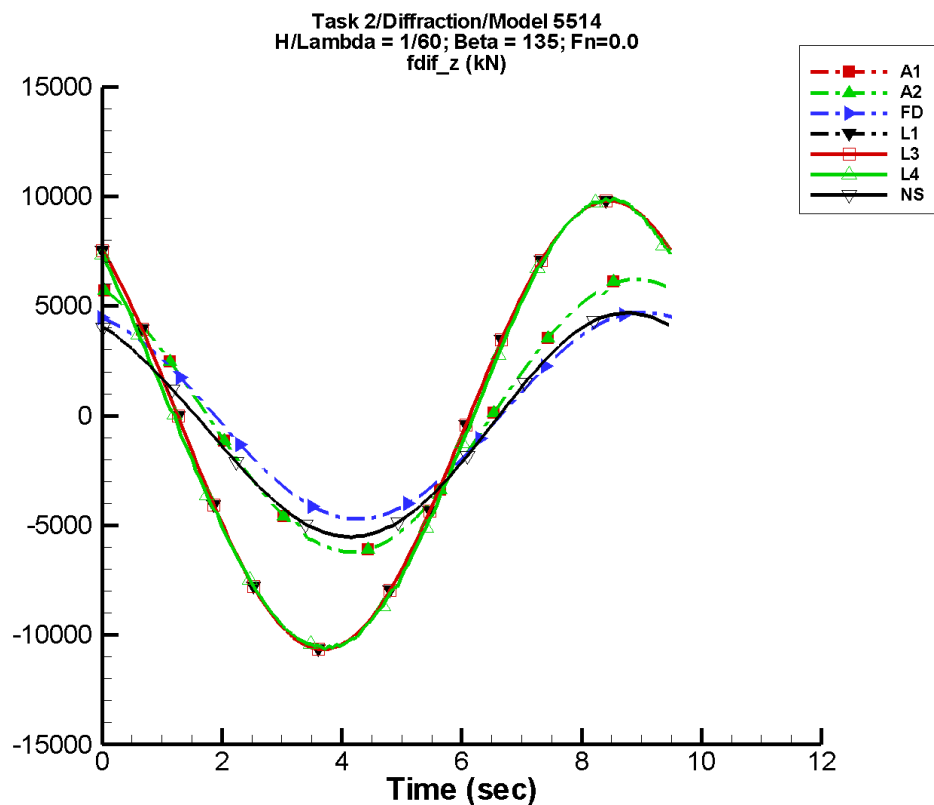
Table H-1703. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	126.	5.99E+04	125	15.0	-16
A2	5.60E+04	6.20E+05	97	2.91E+05	176
FD	0.910	5.10E+04	122	1.08	145
L1	-2.36E+04	1.01E+05	131	1.98E+04	71
L3	-2.36E+04	1.01E+05	131	1.98E+04	71
L4	1.72E+03	8.32E+04	73	5.12E+04	-57
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1704. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.00E+04	6.12E+04	-5.91E+04	5.87E+04
A2	-4.03E+04	-3.71E+04	-4.03E+04	-3.71E+04
FD	-5.10E+04	5.10E+04	-5.05E+04	5.04E+04
L1	-1.36E+05	8.05E+04	-1.35E+05	8.00E+04
L3	-1.36E+05	8.05E+04	-1.35E+05	8.00E+04
L4	-3.83E+05	8.01E+05	-1.19E+05	2.84E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-853. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1705. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

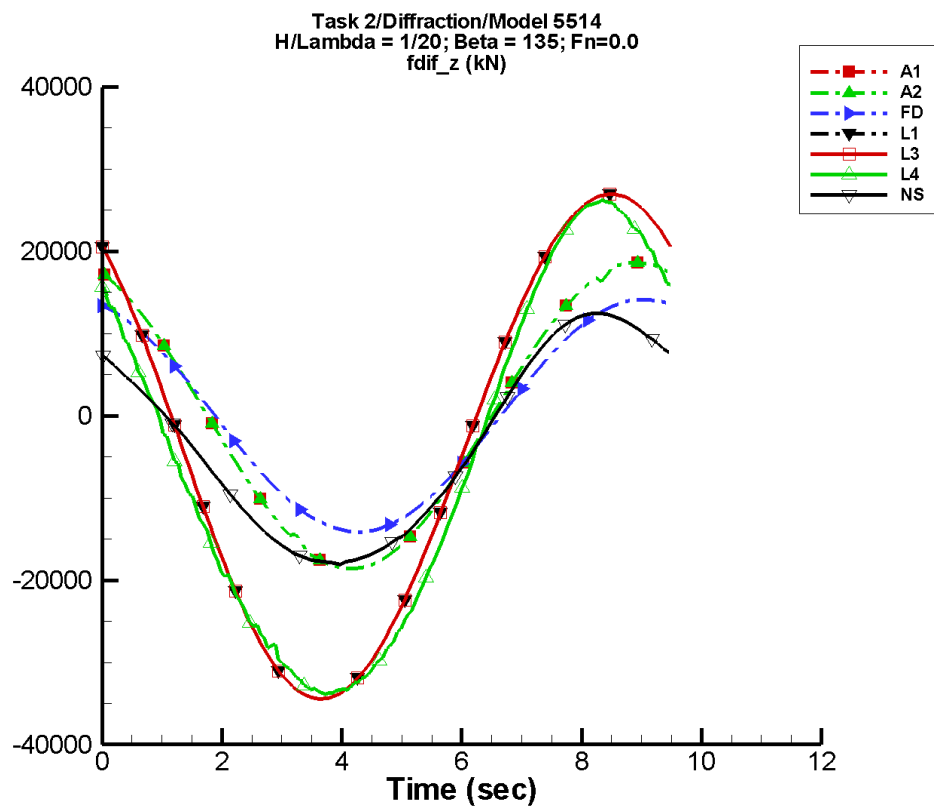
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	14.0	6.20E+03	109	4.21	-32
A2	14.0	6.20E+03	109	4.21	-32
FD	3.56E-02	4.71E+03	103	8.98E-02	173
L1	-412.	1.02E+04	127	64.2	49
L3	-412.	1.02E+04	127	64.2	49
L4	-608.	1.02E+04	127	245.	-177
NF	—	—	—	—	—
NS	-467.	5.08E+03	115	146.	-144

Table H-1706. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.22E+03	6.22E+03	-6.15E+03	6.14E+03
A2	-6.22E+03	6.22E+03	-6.15E+03	6.14E+03
FD	-4.71E+03	4.71E+03	-4.72E+03	4.66E+03
L1	-1.07E+04	9.80E+03	-1.07E+04	9.75E+03
L3	-1.07E+04	9.80E+03	-1.07E+04	9.75E+03
L4	-1.07E+04	9.89E+03	-1.06E+04	9.82E+03
NF	—	—	—	—
NS	-5.55E+03	4.69E+03	-5.48E+03	4.63E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-854. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

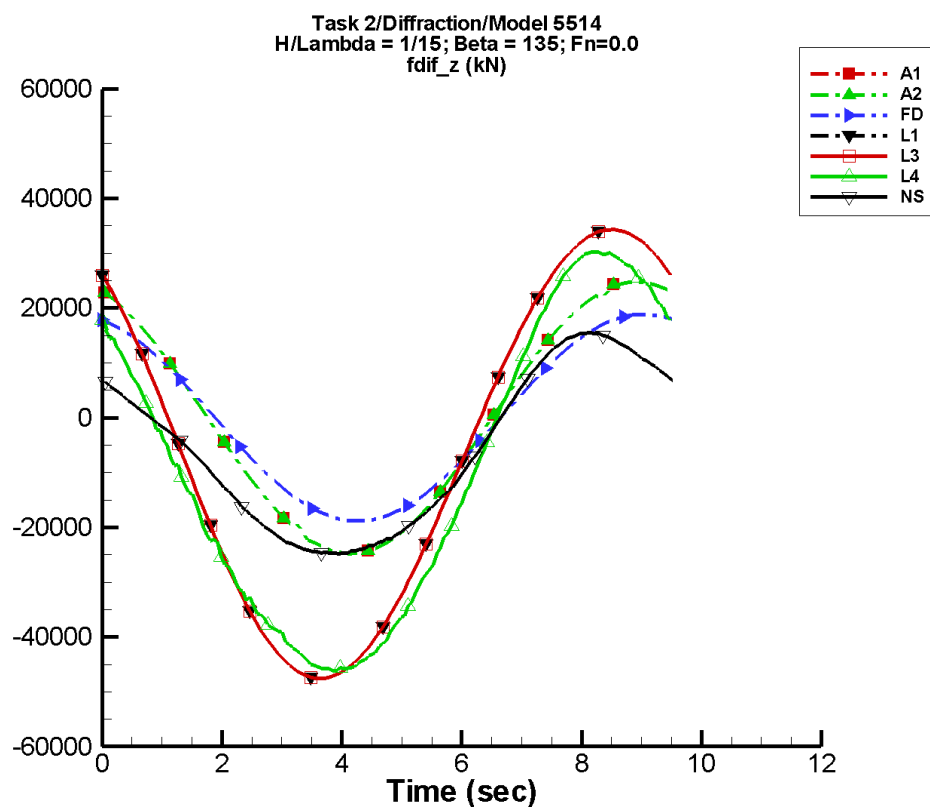
Table H-1707. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	42.0	1.85E+04	109	12.6	-32
A2	42.0	1.85E+04	109	12.6	-32
FD	0.107	1.41E+04	103	0.269	173
L1	-3.61E+03	3.07E+04	127	481.	55
L3	-3.61E+03	3.07E+04	127	481.	55
L4	-5.69E+03	2.93E+04	127	1.97E+03	-160
NF	—	—	—	—	—
NS	-3.35E+03	1.50E+04	126	1.10E+03	-124

Table H-1708. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.86E+04	1.86E+04	-1.84E+04	1.84E+04
A2	-1.86E+04	1.86E+04	-1.84E+04	1.84E+04
FD	-1.41E+04	1.41E+04	-1.42E+04	1.40E+04
L1	-3.45E+04	2.69E+04	-3.44E+04	2.68E+04
L3	-3.45E+04	2.69E+04	-3.44E+04	2.68E+04
L4	-3.39E+04	2.62E+04	-3.37E+04	2.59E+04
NF	—	—	—	—
NS	-1.81E+04	1.25E+04	-1.78E+04	1.22E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-855. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

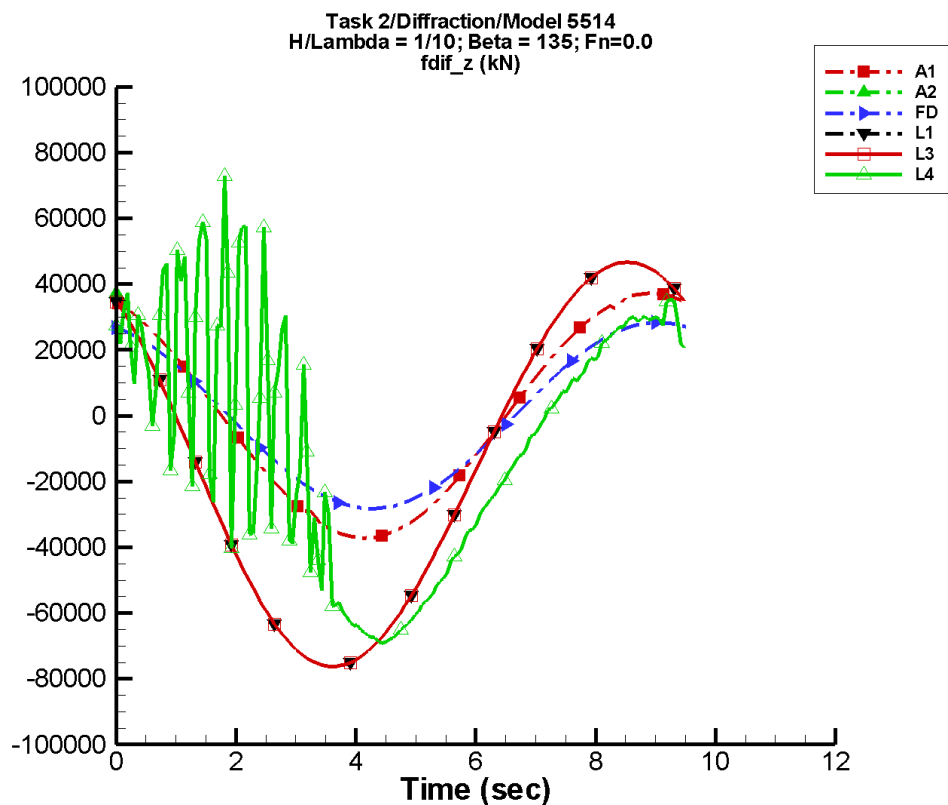
Table H-1709. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	55.9	2.47E+04	109	16.8	-32
A2	55.9	2.47E+04	109	16.8	-32
FD	0.143	1.88E+04	103	0.360	173
L1	-6.39E+03	4.10E+04	127	835.	56
L3	-6.39E+03	4.10E+04	127	835.	56
L4	-1.01E+04	3.75E+04	126	2.66E+03	-158
NF	—	—	—	—	—
NS	-5.97E+03	1.94E+04	127	2.10E+03	-122

Table H-1710. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.48E+04	2.48E+04	-2.45E+04	2.45E+04
A2	-2.48E+04	2.48E+04	-2.45E+04	2.45E+04
FD	-1.88E+04	1.88E+04	-1.89E+04	1.86E+04
L1	-4.77E+04	3.43E+04	-4.75E+04	3.41E+04
L3	-4.77E+04	3.43E+04	-4.75E+04	3.41E+04
L4	-4.64E+04	3.02E+04	-4.61E+04	3.00E+04
NF	—	—	—	—
NS	-2.48E+04	1.55E+04	-2.47E+04	1.52E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-856. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

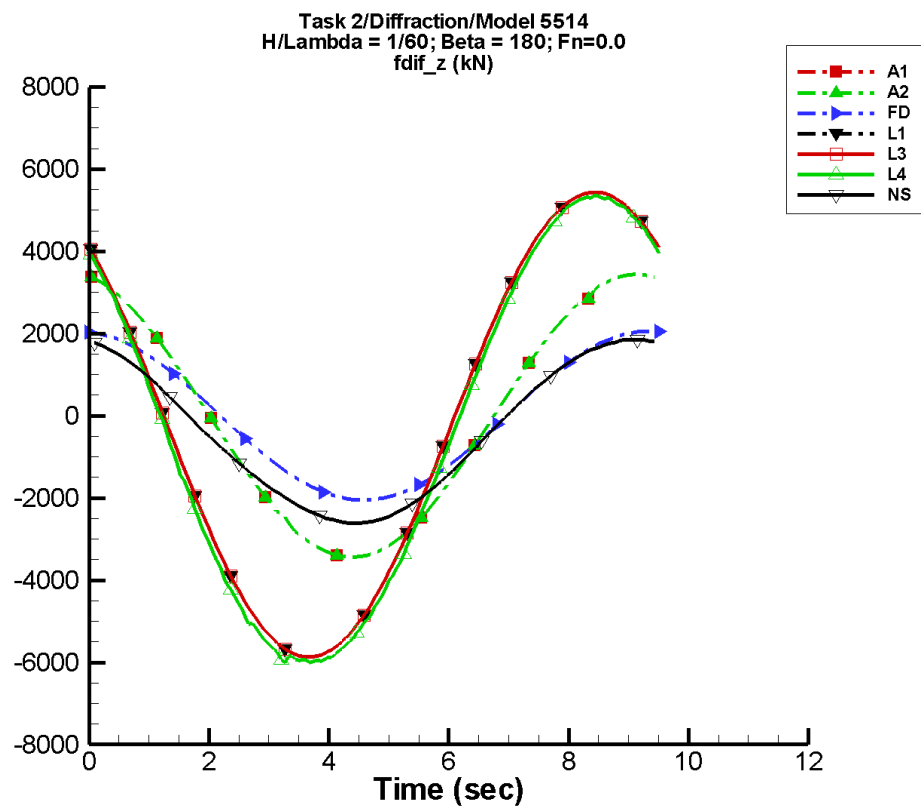
Table H-1711. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	83.9	3.71E+04	109	25.2	-32
A2	-2.54E+05	8.76E+05	47	4.74E+05	-122
FD	0.214	2.83E+04	103	0.535	173
L1	-1.43E+04	6.15E+04	127	1.83E+03	57
L3	-1.43E+04	6.15E+04	127	1.83E+03	57
L4	-8.14E+03	4.59E+04	86	1.42E+04	-88
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1712. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.72E+04	3.72E+04	-3.68E+04	3.67E+04
A2	3.45E+04	3.73E+04	3.45E+04	3.73E+04
FD	-2.83E+04	2.83E+04	-2.83E+04	2.80E+04
L1	-7.65E+04	4.66E+04	-7.62E+04	4.64E+04
L3	-7.65E+04	4.66E+04	-7.62E+04	4.64E+04
L4	-6.90E+04	7.28E+04	-6.82E+04	3.05E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-857. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1713. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

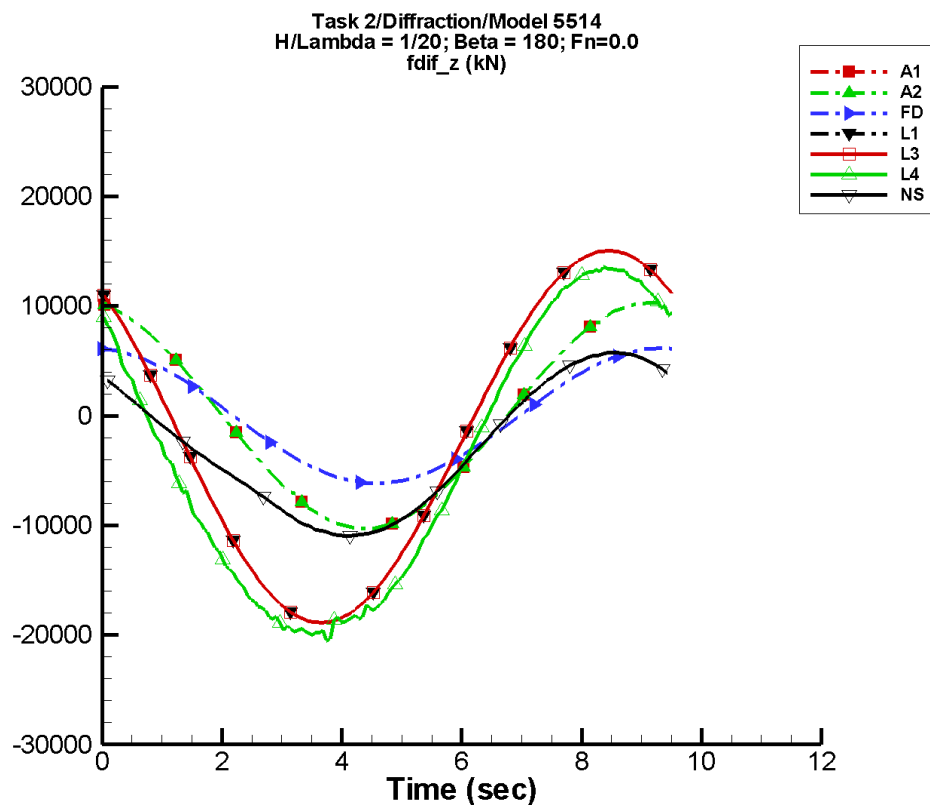
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	6.58	3.44E+03	100	3.30	-50
A2	6.58	3.44E+03	100	3.30	-50
FD	1.02E-03	2.05E+03	92	3.94E-02	-168
L1	-210.	5.66E+03	128	22.1	47
L3	-210.	5.66E+03	128	22.1	47
L4	-421.	5.72E+03	128	99.3	117
NF	—	—	—	—	—
NS	-382.	2.23E+03	106	37.5	174

Table H-1714. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.44E+03	3.44E+03	-3.41E+03	3.40E+03
A2	-3.44E+03	3.44E+03	-3.41E+03	3.40E+03
FD	-2.05E+03	2.05E+03	-2.03E+03	2.03E+03
L1	-5.87E+03	5.44E+03	-5.85E+03	5.41E+03
L3	-5.87E+03	5.44E+03	-5.85E+03	5.41E+03
L4	-6.01E+03	5.35E+03	-5.96E+03	5.31E+03
NF	—	—	—	—
NS	-2.61E+03	1.85E+03	-2.59E+03	1.83E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-858. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

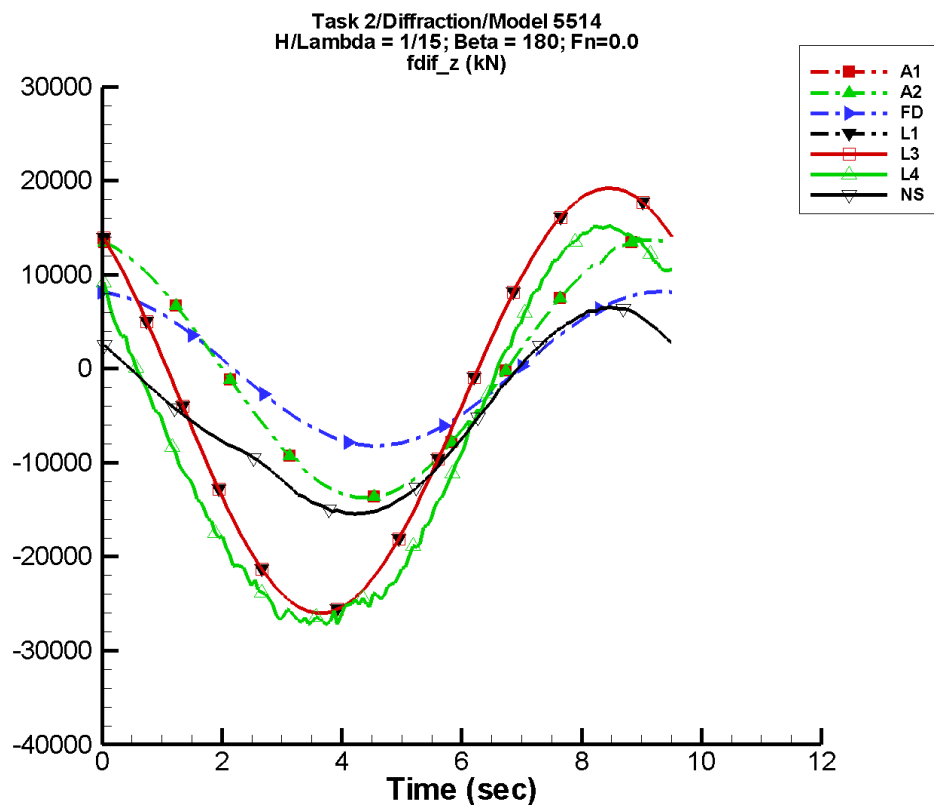
Table H-1715. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	19.7	1.03E+04	100	9.87	-50
A2	19.7	1.03E+04	100	9.87	-50
FD	3.31E-03	6.16E+03	92	0.118	-168
L1	-1.86E+03	1.70E+04	128	154.	50
L3	-1.86E+03	1.70E+04	128	154.	50
L4	-4.12E+03	1.68E+04	131	1.10E+03	160
NF	—	—	—	—	—
NS	-2.80E+03	8.05E+03	123	778.	-133

Table H-1716. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.03E+04	1.03E+04	-1.02E+04	1.02E+04
A2	-1.03E+04	1.03E+04	-1.02E+04	1.02E+04
FD	-6.16E+03	6.16E+03	-6.09E+03	6.09E+03
L1	-1.89E+04	1.50E+04	-1.88E+04	1.50E+04
L3	-1.89E+04	1.50E+04	-1.88E+04	1.50E+04
L4	-2.06E+04	1.36E+04	-1.98E+04	1.33E+04
NF	—	—	—	—
NS	-1.10E+04	5.78E+03	-1.09E+04	5.63E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-859. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

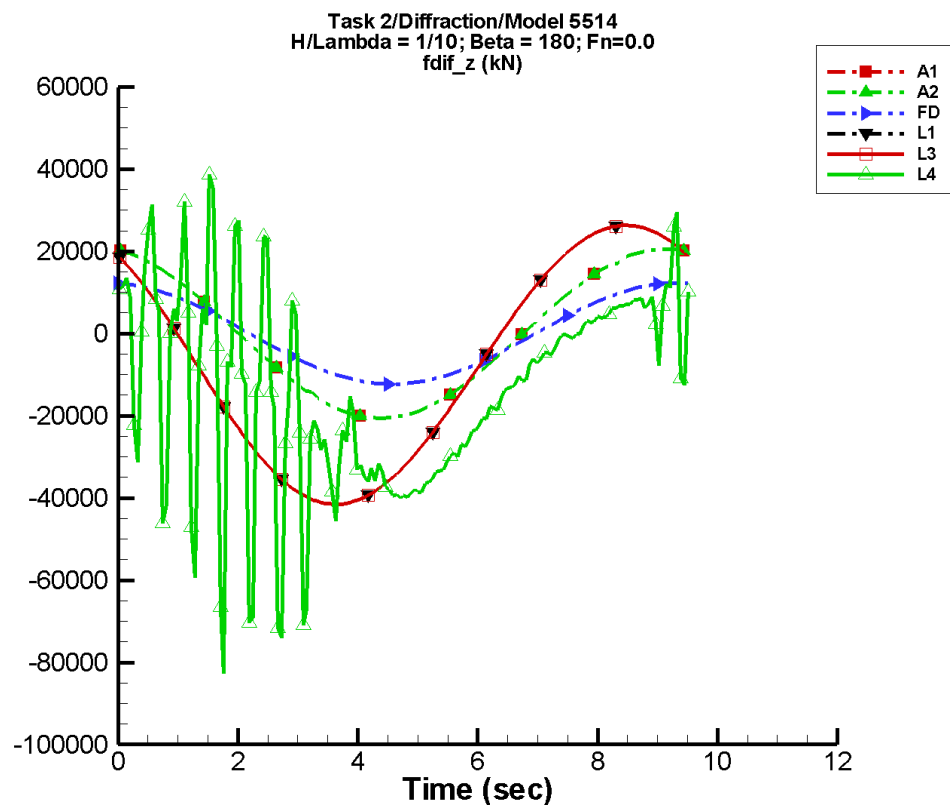
Table H-1717. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	26.2	1.37E+04	100	13.1	-50
A2	26.2	1.37E+04	100	13.1	-50
FD	4.03E-03	8.21E+03	92	0.157	-168
L1	-3.30E+03	2.26E+04	128	263.	51
L3	-3.30E+03	2.26E+04	128	263.	51
L4	-7.42E+03	2.12E+04	130	1.67E+03	171
NF	—	—	—	—	—
NS	-4.95E+03	1.03E+04	123	1.53E+03	-135

Table H-1718. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.37E+04	1.37E+04	-1.36E+04	1.36E+04
A2	-1.37E+04	1.37E+04	-1.36E+04	1.36E+04
FD	-8.21E+03	8.21E+03	-8.12E+03	8.12E+03
L1	-2.60E+04	1.92E+04	-2.59E+04	1.91E+04
L3	-2.60E+04	1.92E+04	-2.59E+04	1.91E+04
L4	-2.72E+04	1.52E+04	-2.68E+04	1.50E+04
NF	—	—	—	—
NS	-1.54E+04	6.51E+03	-1.53E+04	6.40E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-860. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

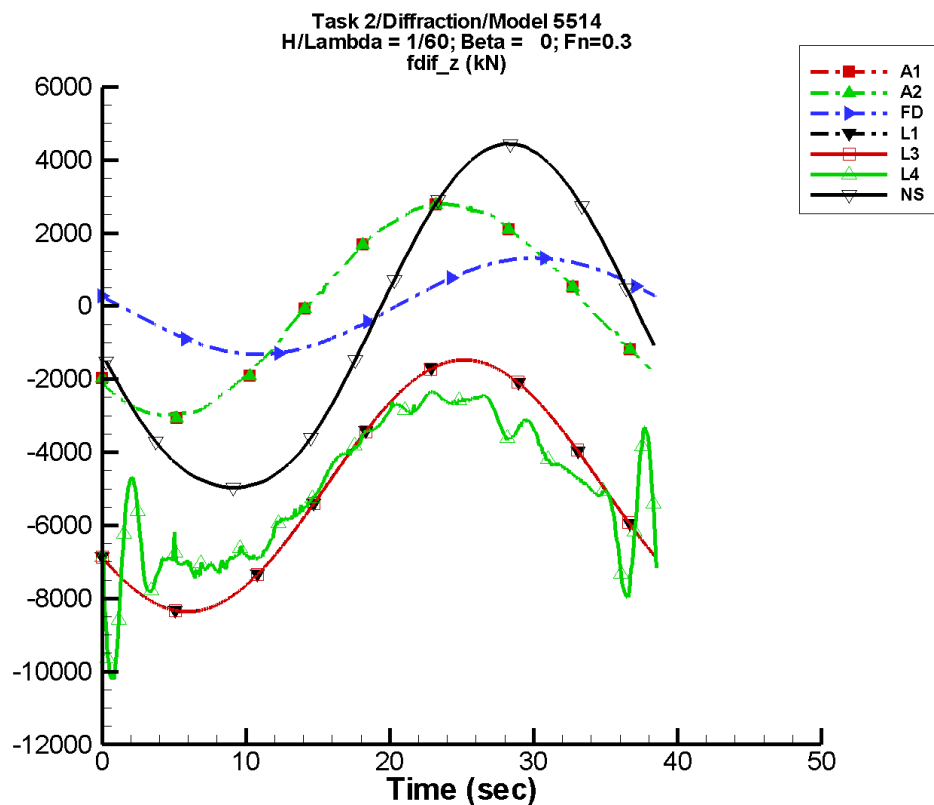
Table H-1719. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	39.4	2.06E+04	100	19.7	-50
A2	39.4	2.06E+04	100	19.7	-50
FD	6.96E-03	1.23E+04	92	0.236	-168
L1	-7.41E+03	3.40E+04	128	570.	51
L3	-7.41E+03	3.40E+04	128	570.	51
L4	-1.38E+04	2.15E+04	106	2.21E+03	-139
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1720. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.06E+04	2.06E+04	-2.04E+04	2.04E+04
A2	-2.06E+04	2.06E+04	-2.04E+04	2.04E+04
FD	-1.23E+04	1.23E+04	-1.22E+04	1.22E+04
L1	-4.16E+04	2.63E+04	-4.14E+04	2.62E+04
L3	-4.16E+04	2.63E+04	-4.14E+04	2.62E+04
L4	-8.29E+04	3.87E+04	-3.90E+04	9.74E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-861. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1721. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

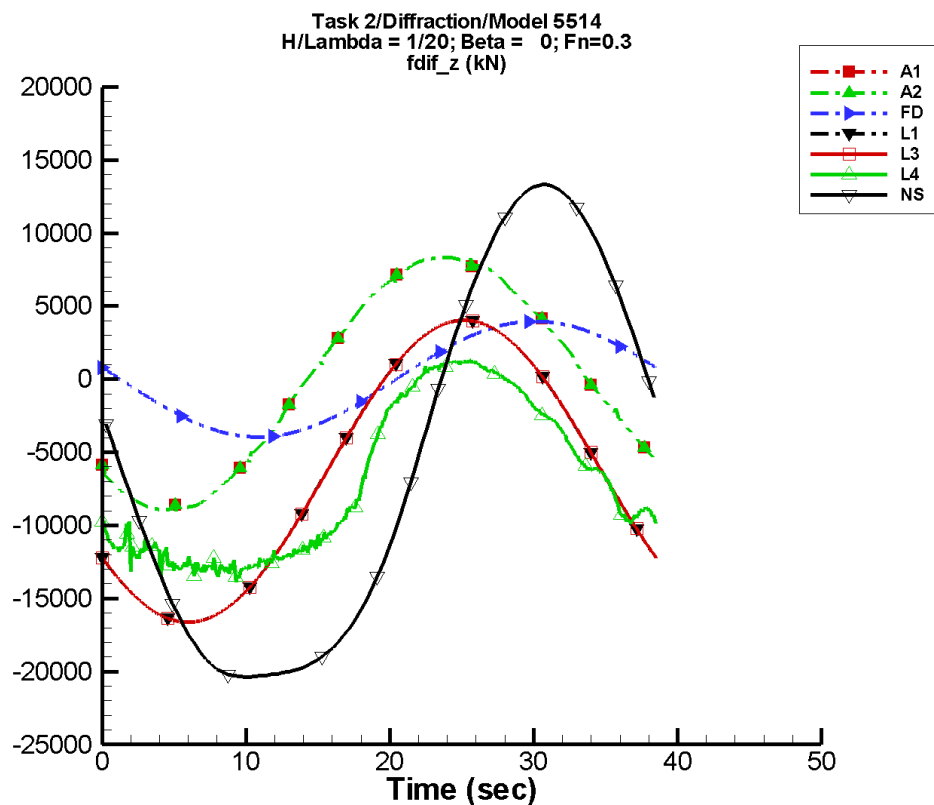
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	3.33	2.82E+03	-130	69.4	149
A2	3.33	2.82E+03	-130	69.4	149
FD	1.50	1.32E+03	176	3.26	32
L1	-4.93E+03	3.44E+03	-142	13.8	17
L3	-4.93E+03	3.44E+03	-143	13.0	16
L4	-4.99E+03	2.40E+03	-134	198.	33
NF	—	—	—	—	—
NS	-494.	4.79E+03	-173	215.	-74

Table H-1722. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.07E+03	2.79E+03	-2.98E+03	2.78E+03
A2	-3.07E+03	2.79E+03	-2.98E+03	2.78E+03
FD	-1.32E+03	1.32E+03	-1.32E+03	1.32E+03
L1	-8.36E+03	-1.47E+03	-8.36E+03	-1.47E+03
L3	-8.36E+03	-1.47E+03	-8.36E+03	-1.47E+03
L4	-1.03E+04	-2.35E+03	-1.02E+04	-2.36E+03
NF	—	—	—	—
NS	-5.07E+03	4.44E+03	-5.09E+03	4.39E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-862. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

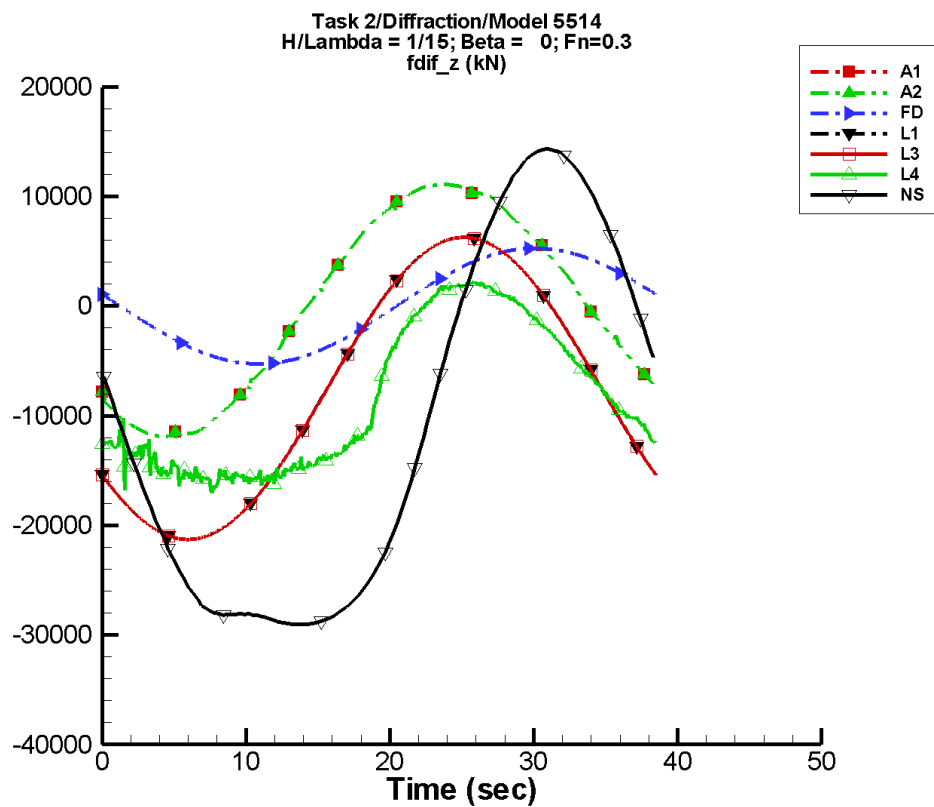
Table H-1723. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	9.97	8.44E+03	-130	208.	149
A2	9.97	8.44E+03	-130	208.	149
FD	4.49	3.96E+03	176	9.79	32
L1	-6.36E+03	1.03E+04	-142	80.5	11
L3	-6.36E+03	1.03E+04	-143	78.4	11
L4	-7.09E+03	7.12E+03	-153	1.60E+03	-4
NF	—	—	—	—	—
NS	-5.70E+03	1.73E+04	163	2.09E+03	-125

Table H-1724. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-9.18E+03	8.34E+03	-8.91E+03	8.33E+03
A2	-9.18E+03	8.34E+03	-8.91E+03	8.33E+03
FD	-3.96E+03	3.96E+03	-3.96E+03	3.96E+03
L1	-1.66E+04	4.04E+03	-1.66E+04	4.03E+03
L3	-1.66E+04	4.04E+03	-1.66E+04	4.03E+03
L4	-1.39E+04	1.47E+03	-1.34E+04	1.22E+03
NF	—	—	—	—
NS	-2.04E+04	1.33E+04	-2.03E+04	1.31E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-863. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

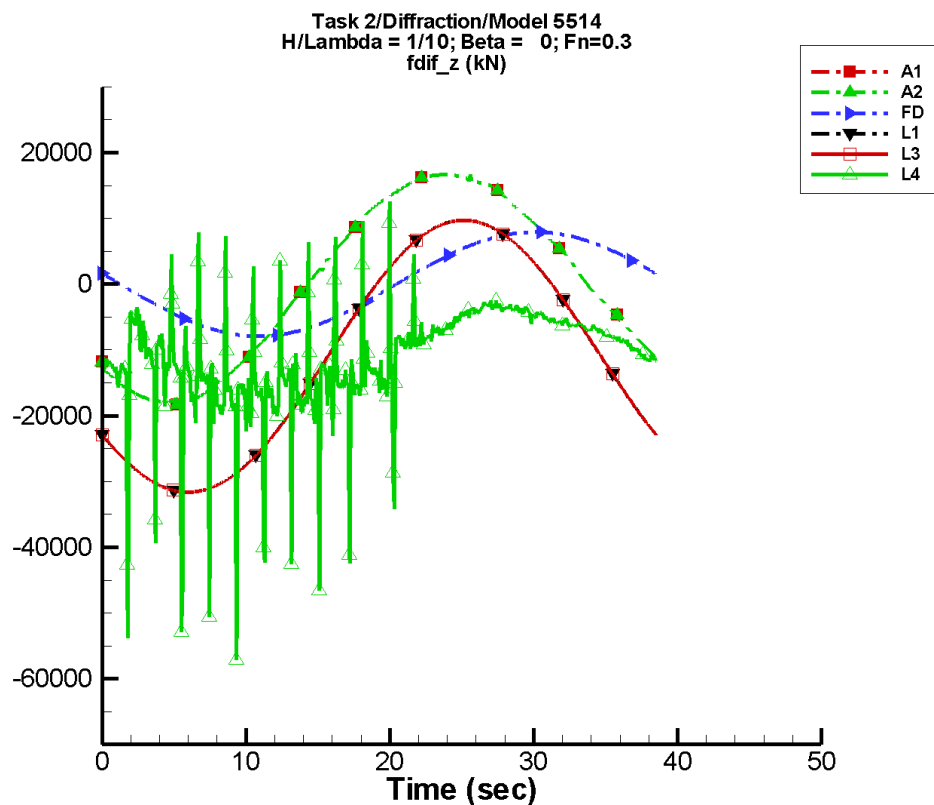
Table H-1725. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	13.3	1.12E+04	-130	277.	149
A2	13.3	1.12E+04	-130	277.	149
FD	5.98	5.27E+03	176	13.1	32
L1	-7.62E+03	1.38E+04	-142	134.	10
L3	-7.62E+03	1.38E+04	-143	131.	10
L4	-8.63E+03	8.85E+03	-160	2.26E+03	-20
NF	—	—	—	—	—
NS	-1.12E+04	2.22E+04	159	3.92E+03	-124

Table H-1726. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.22E+04	1.11E+04	-1.19E+04	1.11E+04
A2	-1.22E+04	1.11E+04	-1.19E+04	1.11E+04
FD	-5.28E+03	5.28E+03	-5.27E+03	5.27E+03
L1	-2.13E+04	6.28E+03	-2.13E+04	6.27E+03
L3	-2.13E+04	6.27E+03	-2.13E+04	6.27E+03
L4	-1.70E+04	2.26E+03	-1.65E+04	2.15E+03
NF	—	—	—	—
NS	-2.91E+04	1.43E+04	-2.90E+04	1.41E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-864. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

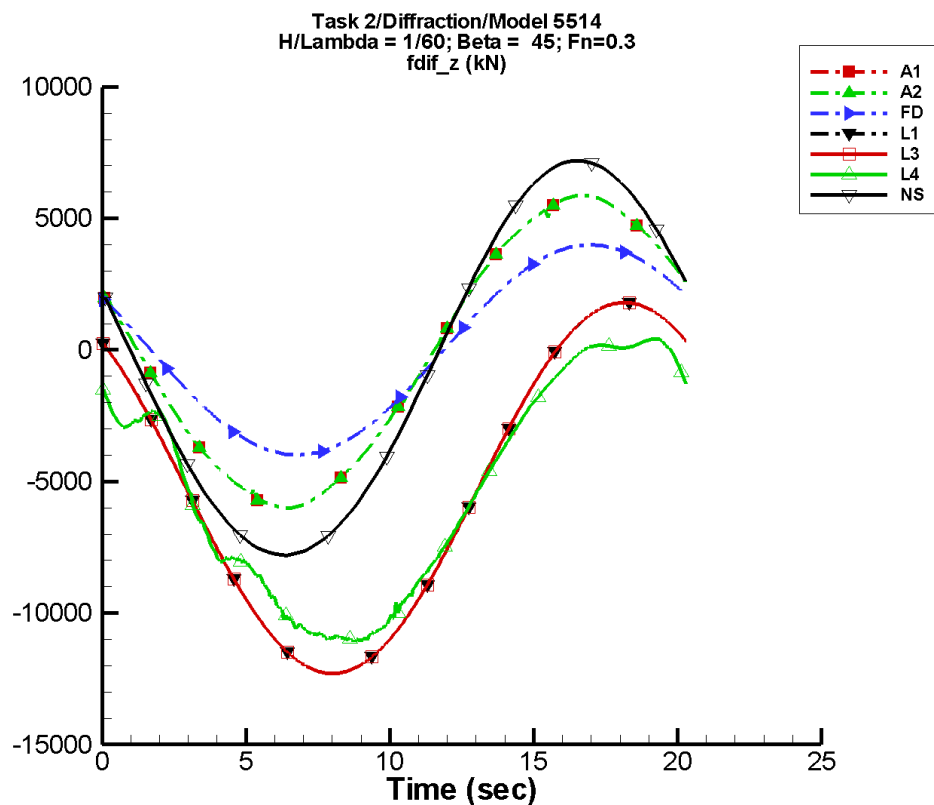
Table H-1727. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	19.9	1.69E+04	-130	415.	149
A2	19.9	1.69E+04	-130	415.	149
FD	8.97	7.91E+03	176	19.6	32
L1	-1.12E+04	2.07E+04	-142	280.	9
L3	-1.12E+04	2.07E+04	-143	276.	8
L4	-1.09E+04	6.48E+03	177	1.20E+03	-18
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1728. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.84E+04	1.67E+04	-1.78E+04	1.67E+04
A2	-1.84E+04	1.67E+04	-1.78E+04	1.67E+04
FD	-7.92E+03	7.92E+03	-7.91E+03	7.91E+03
L1	-3.16E+04	9.72E+03	-3.16E+04	9.71E+03
L3	-3.16E+04	9.71E+03	-3.16E+04	9.71E+03
L4	-5.71E+04	1.25E+04	-2.71E+04	-2.87E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-865. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1729. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

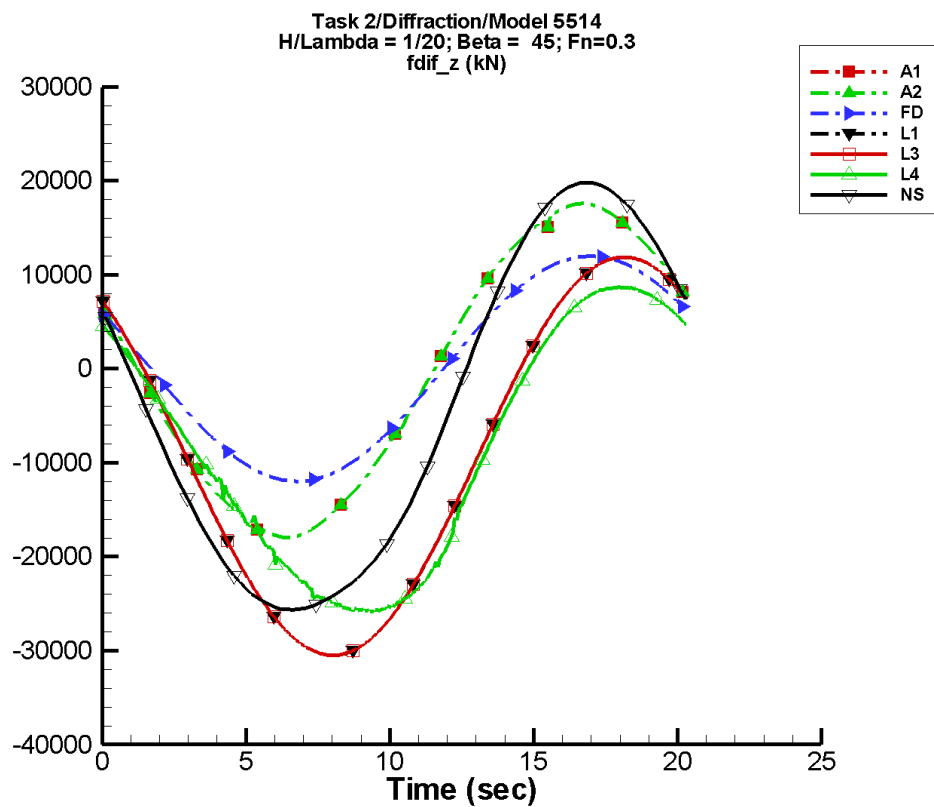
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-10.4	5.82E+03	148	4.86	50
A2	-10.4	5.82E+03	148	4.86	50
FD	-0.463	4.00E+03	139	6.09	101
L1	-5.24E+03	7.05E+03	125	13.6	-68
L3	-5.24E+03	7.05E+03	125	13.8	-67
L4	-5.30E+03	5.64E+03	124	241.	-88
NF	—	—	—	—	—
NS	-432.	7.49E+03	156	157.	-129

Table H-1730. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.01E+03	5.88E+03	-5.99E+03	5.86E+03
A2	-6.01E+03	5.88E+03	-5.99E+03	5.86E+03
FD	-3.99E+03	3.99E+03	-3.98E+03	3.98E+03
L1	-1.23E+04	1.80E+03	-1.23E+04	1.79E+03
L3	-1.23E+04	1.80E+03	-1.23E+04	1.79E+03
L4	-1.11E+04	429.	-1.10E+04	400.
NF	—	—	—	—
NS	-7.80E+03	7.19E+03	-7.73E+03	7.11E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-866. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

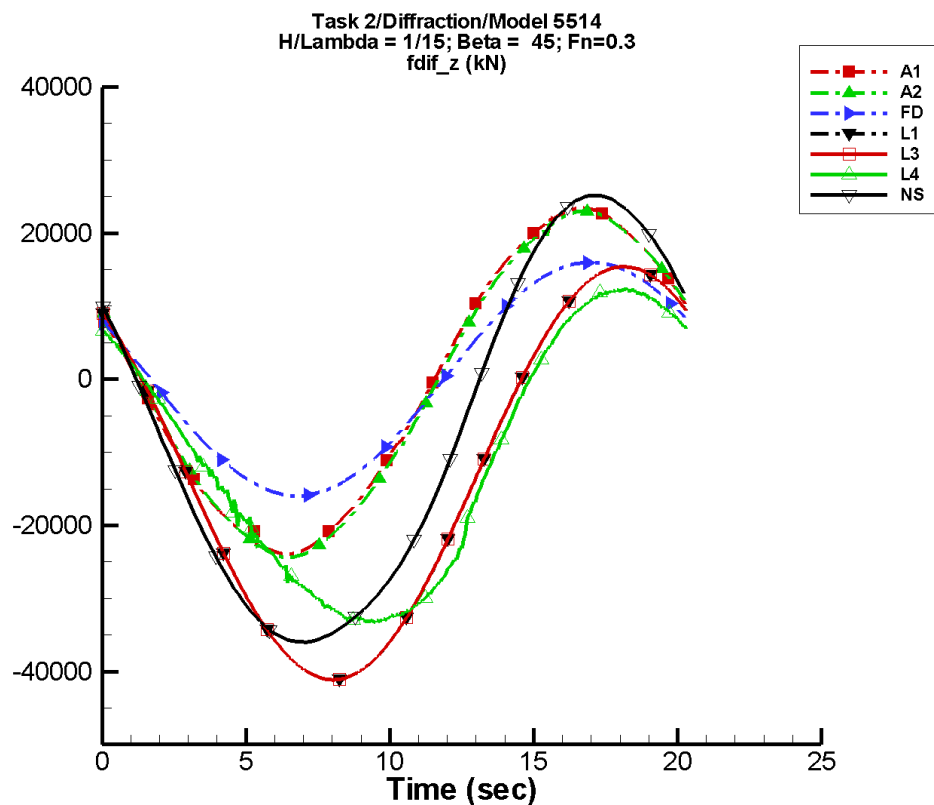
Table H-1731. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-31.1	1.74E+04	148	14.5	50
A2	-31.1	1.74E+04	148	14.5	50
FD	-1.39	1.20E+04	139	18.3	101
L1	-9.26E+03	2.12E+04	125	109.	-80
L3	-9.26E+03	2.12E+04	125	110.	-80
L4	-8.67E+03	1.72E+04	119	1.85E+03	-129
NF	—	—	—	—	—
NS	-4.23E+03	2.29E+04	148	1.35E+03	-141

Table H-1732. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.80E+04	1.76E+04	-1.79E+04	1.75E+04
A2	-1.80E+04	1.76E+04	-1.79E+04	1.75E+04
FD	-1.20E+04	1.20E+04	-1.20E+04	1.20E+04
L1	-3.05E+04	1.19E+04	-3.05E+04	1.18E+04
L3	-3.05E+04	1.19E+04	-3.05E+04	1.18E+04
L4	-2.60E+04	8.69E+03	-2.58E+04	8.63E+03
NF	—	—	—	—
NS	-2.57E+04	1.98E+04	-2.55E+04	1.95E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-867. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

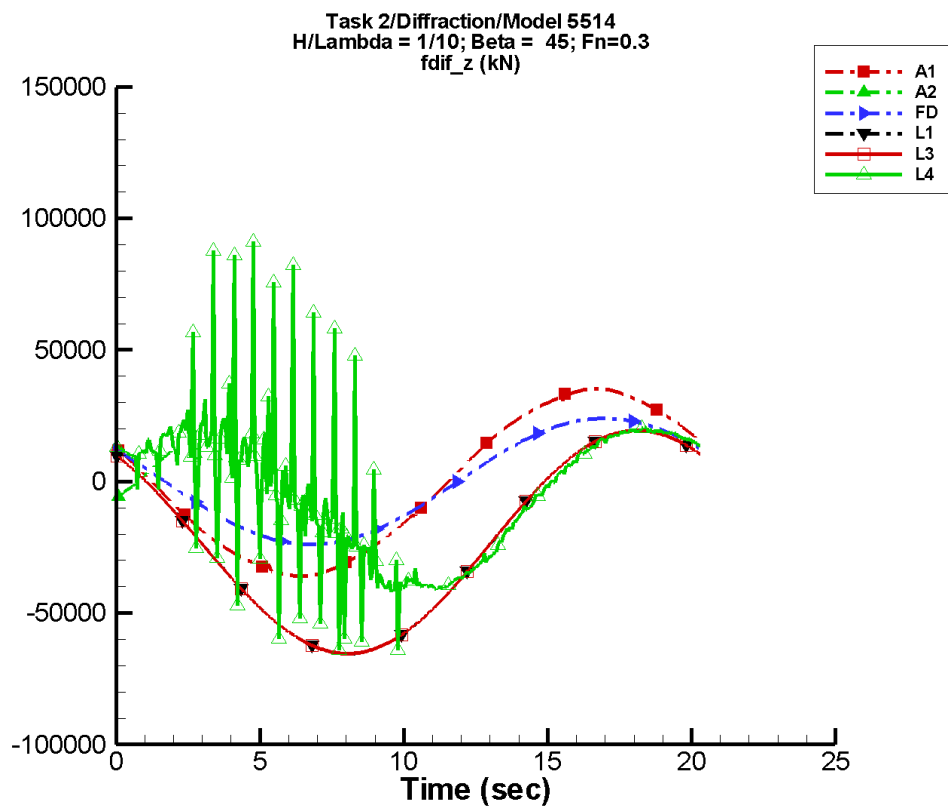
Table H-1733. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-41.4	2.32E+04	148	19.4	50
A2	-375.	2.22E+04	150	162.	50
FD	-1.85	1.60E+04	139	24.4	101
L1	-1.28E+04	2.83E+04	125	192.	-81
L3	-1.28E+04	2.82E+04	125	193.	-81
L4	-1.09E+04	2.26E+04	115	2.75E+03	-138
NF	—	—	—	—	—
NS	-6.87E+03	3.07E+04	142	1.59E+03	-146

Table H-1734. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.39E+04	2.34E+04	-2.38E+04	2.33E+04
A2	-2.44E+04	2.30E+04	-2.43E+04	2.29E+04
FD	-1.60E+04	1.60E+04	-1.59E+04	1.59E+04
L1	-4.11E+04	1.54E+04	-4.11E+04	1.54E+04
L3	-4.11E+04	1.54E+04	-4.11E+04	1.54E+04
L4	-3.32E+04	1.25E+04	-3.32E+04	1.22E+04
NF	—	—	—	—
NS	-3.60E+04	2.52E+04	-3.58E+04	2.49E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-868. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

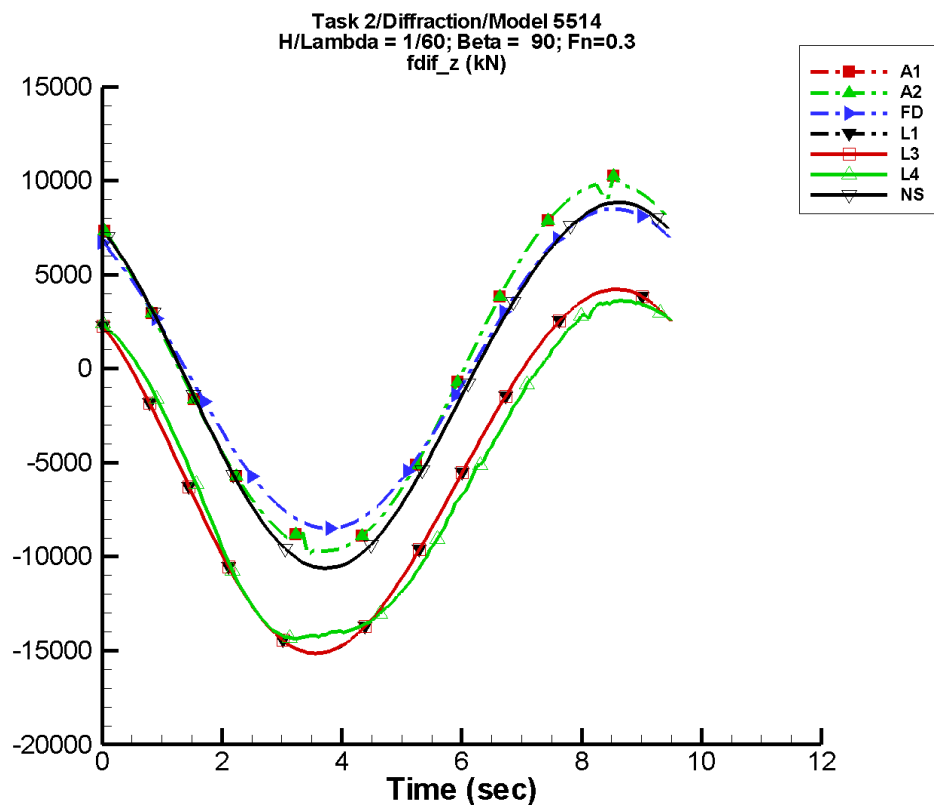
Table H-1735. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	-62.2	3.48E+04	148	29.1	50
A2	-6.50E+03	7.58E+03	91	1.72E+04	-27
FD	-2.78	2.40E+04	139	36.5	101
L1	-2.28E+04	4.24E+04	125	429.	-82
L3	-2.28E+04	4.24E+04	125	430.	-82
L4	-3.57E+03	2.79E+04	79	1.02E+04	-119
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1736. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.59E+04	3.52E+04	-3.58E+04	3.51E+04
A2	-1.80E+04	1.32E+04	-1.78E+04	1.24E+04
FD	-2.40E+04	2.40E+04	-2.39E+04	2.39E+04
L1	-6.54E+04	1.94E+04	-6.54E+04	1.93E+04
L3	-6.54E+04	1.94E+04	-6.54E+04	1.93E+04
L4	-6.40E+04	9.12E+04	-4.21E+04	2.15E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-869. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1737. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

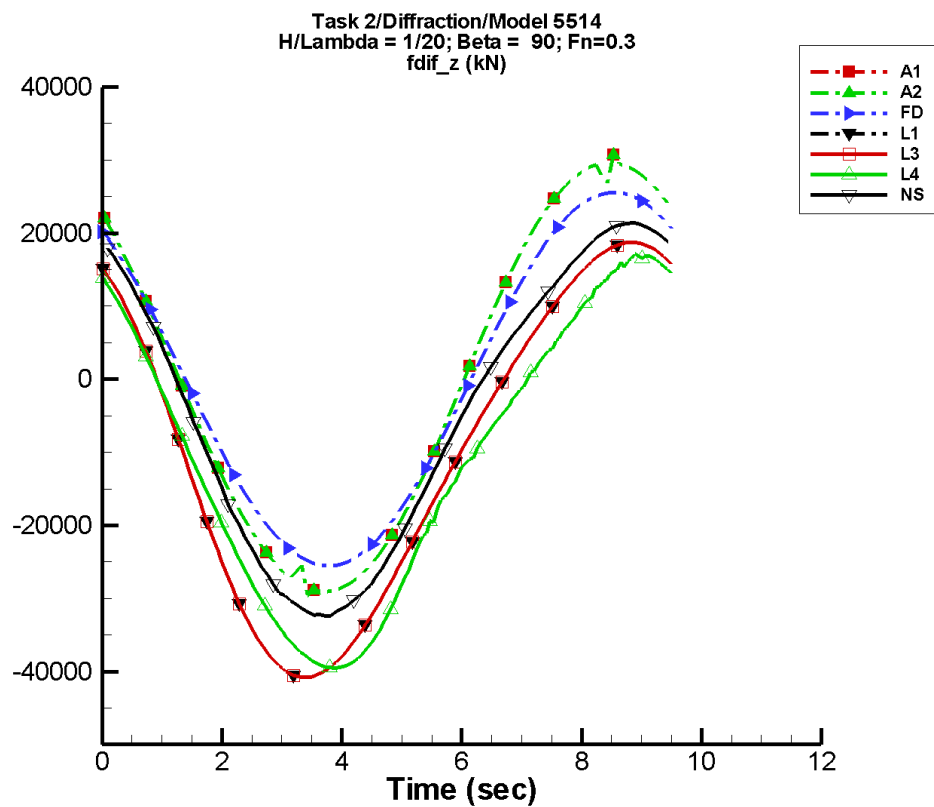
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	91.3	9.85E+03	126	5.77	143
A2	91.3	9.85E+03	126	5.77	143
FD	0.143	8.51E+03	122	0.188	145
L1	-5.33E+03	9.65E+03	128	413.	57
L3	-5.33E+03	9.65E+03	128	413.	57
L4	-5.49E+03	9.27E+03	122	639.	73
NF	—	—	—	—	—
NS	-722.	9.71E+03	127	287.	38

Table H-1738. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-9.91E+03	1.02E+04	-9.56E+03	9.66E+03
A2	-9.91E+03	1.02E+04	-9.56E+03	9.66E+03
FD	-8.51E+03	8.51E+03	-8.43E+03	8.41E+03
L1	-1.51E+04	4.22E+03	-1.51E+04	4.18E+03
L3	-1.51E+04	4.22E+03	-1.51E+04	4.18E+03
L4	-1.44E+04	3.65E+03	-1.43E+04	3.58E+03
NF	—	—	—	—
NS	-1.06E+04	8.86E+03	-1.05E+04	8.76E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-870. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

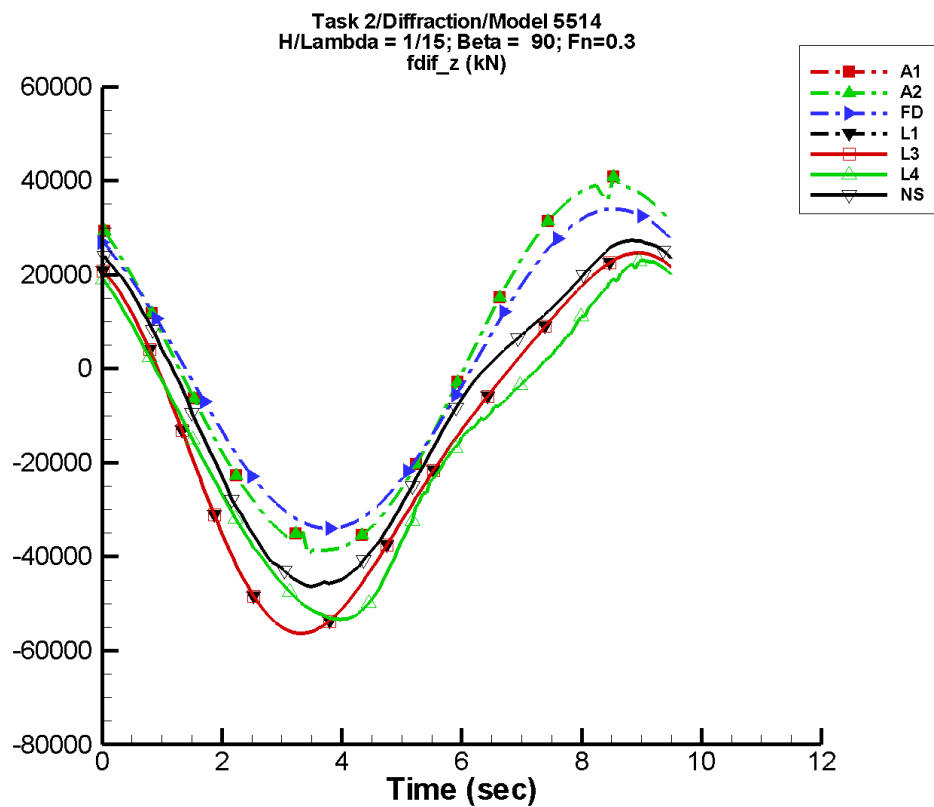
Table H-1739. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	273.	2.95E+04	126	17.3	143
A2	273.	2.95E+04	126	17.3	143
FD	0.430	2.55E+04	122	0.563	146
L1	-9.98E+03	2.89E+04	128	3.73E+03	57
L3	-9.98E+03	2.89E+04	128	3.73E+03	57
L4	-1.11E+04	2.62E+04	120	2.68E+03	34
NF	—	—	—	—	—
NS	-4.64E+03	2.62E+04	127	2.33E+03	42

Table H-1740. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.96E+04	3.06E+04	-2.86E+04	2.89E+04
A2	-2.96E+04	3.06E+04	-2.86E+04	2.89E+04
FD	-2.55E+04	2.55E+04	-2.53E+04	2.52E+04
L1	-4.08E+04	1.87E+04	-4.07E+04	1.86E+04
L3	-4.08E+04	1.87E+04	-4.07E+04	1.86E+04
L4	-3.96E+04	1.72E+04	-3.94E+04	1.67E+04
NF	—	—	—	—
NS	-3.24E+04	2.14E+04	-3.20E+04	2.10E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-871. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

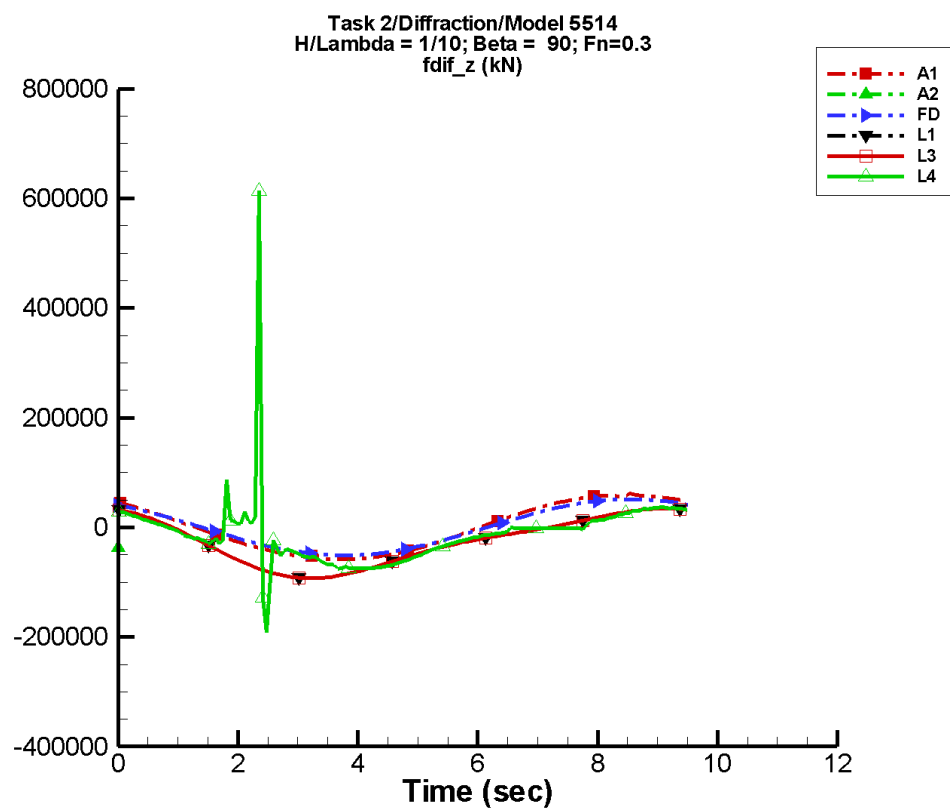
Table H-1741. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	364.	3.92E+04	126	23.0	143
A2	364.	3.92E+04	126	23.0	143
FD	0.573	3.40E+04	122	0.752	146
L1	-1.40E+04	3.86E+04	128	6.63E+03	57
L3	-1.40E+04	3.86E+04	128	6.63E+03	57
L4	-1.51E+04	3.43E+04	120	4.57E+03	32
NF	—	—	—	—	—
NS	-8.21E+03	3.53E+04	128	4.71E+03	46

Table H-1742. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.95E+04	4.08E+04	-3.81E+04	3.85E+04
A2	-3.95E+04	4.08E+04	-3.81E+04	3.85E+04
FD	-3.40E+04	3.40E+04	-3.37E+04	3.37E+04
L1	-5.63E+04	2.47E+04	-5.61E+04	2.45E+04
L3	-5.63E+04	2.46E+04	-5.61E+04	2.45E+04
L4	-5.35E+04	2.30E+04	-5.32E+04	2.26E+04
NF	—	—	—	—
NS	-4.63E+04	2.74E+04	-4.59E+04	2.70E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-872. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

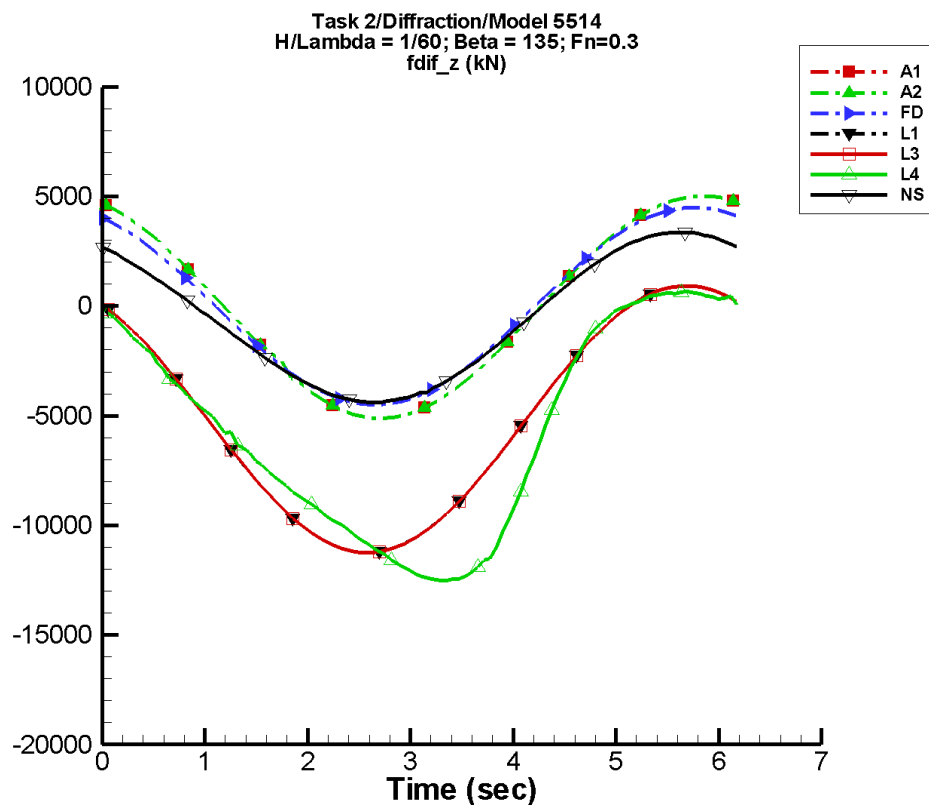
Table H-1743. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	546.	5.89E+04	126	34.5	143
A2	-1.24E+05	5.97E+05	82	2.71E+05	-179
FD	0.862	5.10E+04	122	1.13	146
L1	-2.56E+04	5.79E+04	128	1.49E+04	56
L3	-2.56E+04	5.79E+04	128	1.49E+04	56
L4	-1.43E+04	4.04E+04	105	1.28E+04	-55
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1744. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.93E+04	6.13E+04	-5.72E+04	5.78E+04
A2	-3.79E+04	-3.48E+04	-3.79E+04	-3.48E+04
FD	-5.11E+04	5.10E+04	-5.06E+04	5.05E+04
L1	-9.29E+04	3.46E+04	-9.25E+04	3.43E+04
L3	-9.29E+04	3.46E+04	-9.25E+04	3.43E+04
L4	-1.92E+05	6.18E+05	-7.52E+04	5.42E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-873. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1745. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

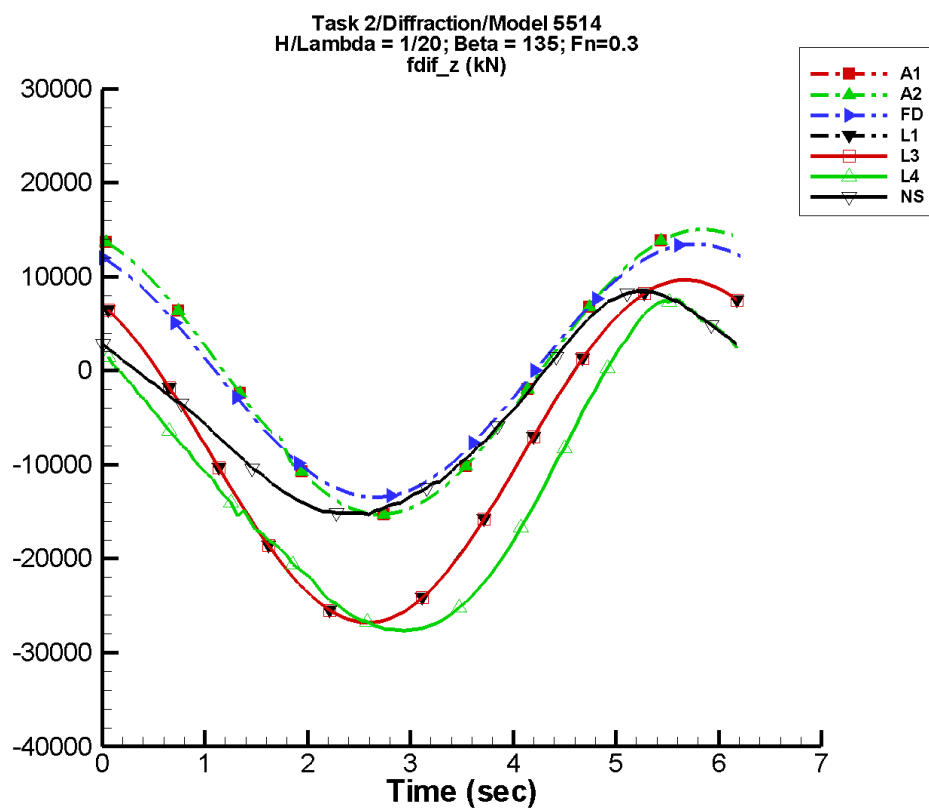
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	5.61	5.05E+03	106	62.9	-54
A2	5.61	5.05E+03	106	62.9	-54
FD	-3.12	4.50E+03	95	3.77	126
L1	-5.15E+03	6.08E+03	111	17.6	-71
L3	-5.15E+03	6.08E+03	111	17.6	-71
L4	-5.63E+03	6.45E+03	98	1.34E+03	-164
NF	—	—	—	—	—
NS	-531.	3.82E+03	119	169.	-124

Table H-1746. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-5.12E+03	5.02E+03	-4.98E+03	4.89E+03
A2	-5.12E+03	5.02E+03	-4.98E+03	4.89E+03
FD	-4.49E+03	4.49E+03	-4.38E+03	4.38E+03
L1	-1.12E+04	916.	-1.12E+04	860.
L3	-1.12E+04	916.	-1.12E+04	860.
L4	-1.25E+04	662.	-1.24E+04	589.
NF	—	—	—	—
NS	-4.41E+03	3.36E+03	-4.34E+03	3.32E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-874. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

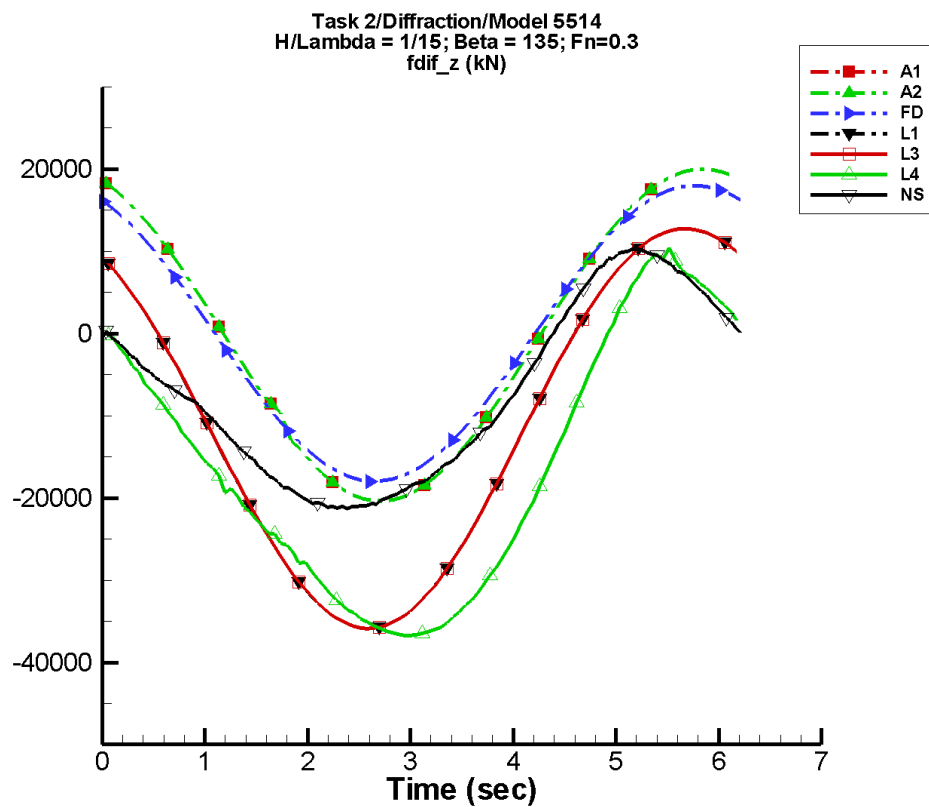
Table H-1747. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	16.8	1.51E+04	106	188.	-54
A2	16.8	1.51E+04	106	188.	-54
FD	-9.37	1.35E+04	95	11.3	126
L1	-8.41E+03	1.82E+04	111	194.	-77
L3	-8.41E+03	1.82E+04	111	194.	-77
L4	-1.17E+04	1.66E+04	104	2.57E+03	-179
NF	—	—	—	—	—
NS	-4.18E+03	1.13E+04	133	1.15E+03	-119

Table H-1748. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.53E+04	1.50E+04	-1.49E+04	1.46E+04
A2	-1.53E+04	1.50E+04	-1.49E+04	1.46E+04
FD	-1.35E+04	1.35E+04	-1.31E+04	1.31E+04
L1	-2.68E+04	9.65E+03	-2.66E+04	9.48E+03
L3	-2.68E+04	9.65E+03	-2.66E+04	9.48E+03
L4	-2.77E+04	7.59E+03	-2.75E+04	7.04E+03
NF	—	—	—	—
NS	-1.53E+04	8.46E+03	-1.51E+04	8.23E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-875. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

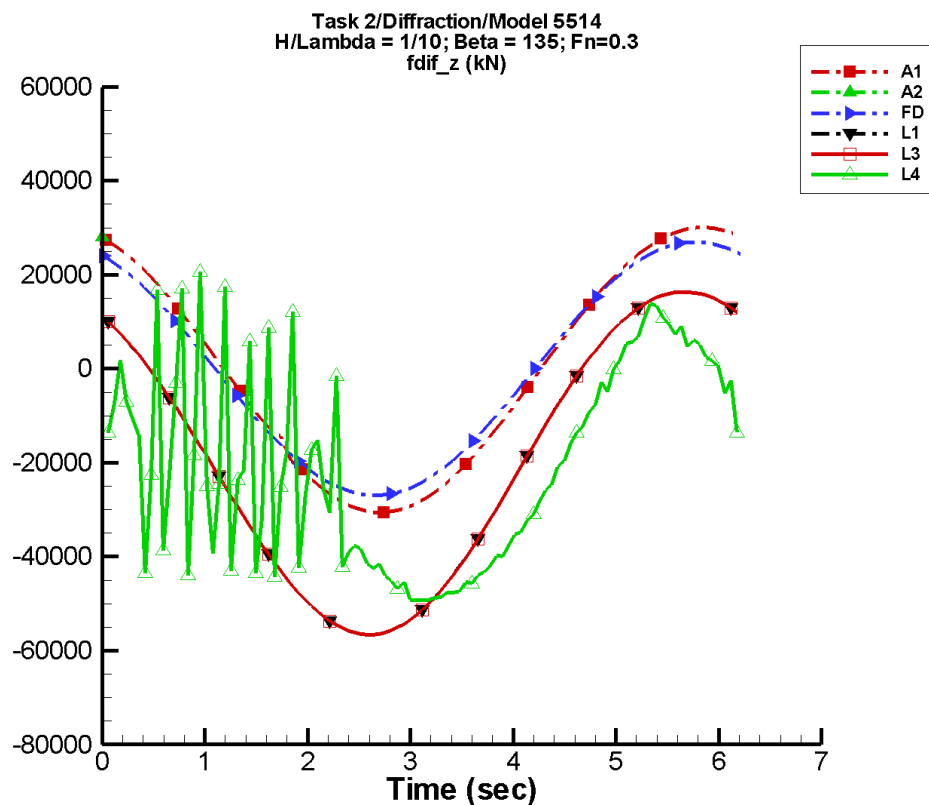
Table H-1749. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	22.4	2.01E+04	106	251.	-54
A2	22.4	2.01E+04	106	251.	-54
FD	-12.5	1.80E+04	95	15.1	126
L1	-1.13E+04	2.43E+04	111	355.	-78
L3	-1.13E+04	2.43E+04	111	355.	-78
L4	-1.61E+04	2.12E+04	104	4.03E+03	-178
NF	—	—	—	—	—
NS	-7.29E+03	1.46E+04	136	2.16E+03	-127

Table H-1750. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.04E+04	2.00E+04	-1.99E+04	1.95E+04
A2	-2.04E+04	2.00E+04	-1.99E+04	1.95E+04
FD	-1.80E+04	1.80E+04	-1.75E+04	1.75E+04
L1	-3.59E+04	1.27E+04	-3.56E+04	1.25E+04
L3	-3.59E+04	1.27E+04	-3.56E+04	1.25E+04
L4	-3.67E+04	1.04E+04	-3.65E+04	8.77E+03
NF	—	—	—	—
NS	-2.13E+04	1.03E+04	-2.11E+04	9.94E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-876. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

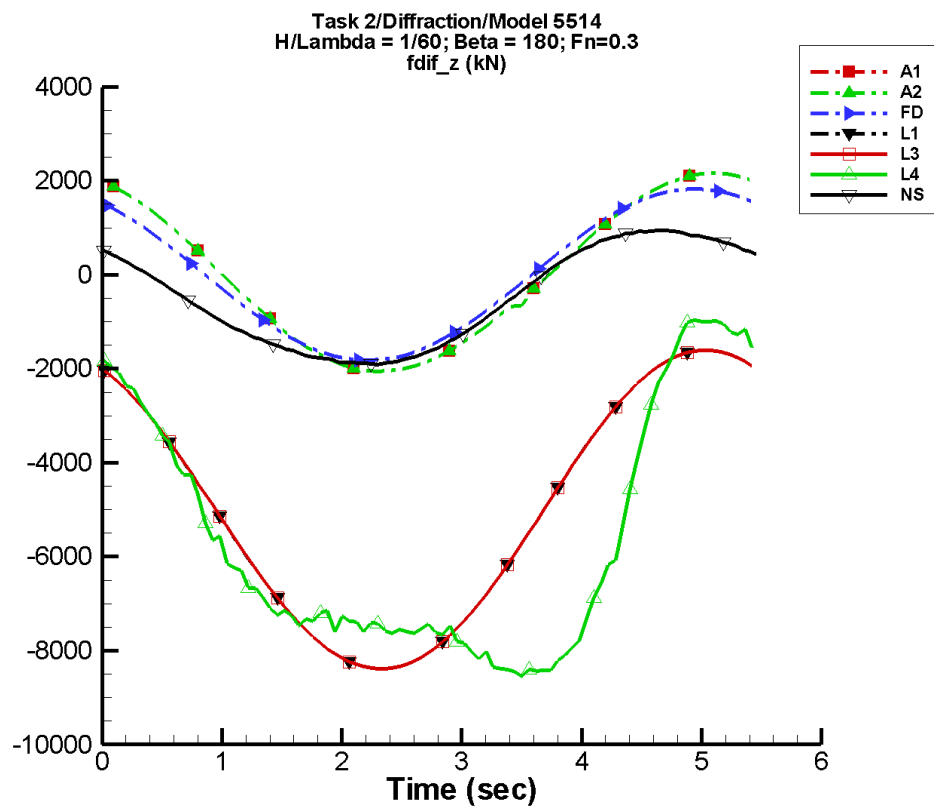
Table H-1751. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	33.6	3.02E+04	106	376.	-54
A2	1.58E+04	2.47E+04	-123	2.50E+04	132
FD	-18.7	2.70E+04	95	22.6	126
L1	-1.94E+04	3.65E+04	111	820.	-79
L3	-1.94E+04	3.65E+04	111	820.	-79
L4	-2.05E+04	2.21E+04	93	1.11E+04	-163
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1752. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-3.06E+04	3.00E+04	-2.98E+04	2.93E+04
A2	2.70E+04	2.81E+04	2.70E+04	2.81E+04
FD	-2.70E+04	2.70E+04	-2.63E+04	2.63E+04
L1	-5.66E+04	1.63E+04	-5.62E+04	1.60E+04
L3	-5.66E+04	1.63E+04	-5.62E+04	1.60E+04
L4	-4.93E+04	2.06E+04	-4.85E+04	1.02E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-877. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1753. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

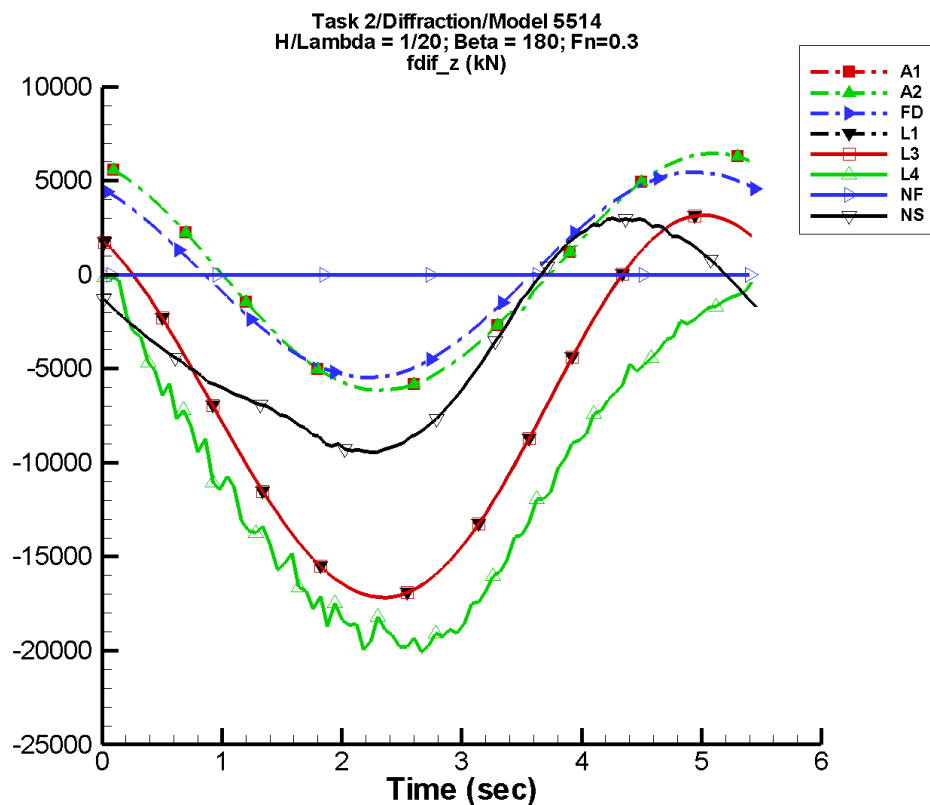
Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	31.2	2.10E+03	121	39.7	104
A2	31.2	2.10E+03	121	39.7	104
FD	5.69	1.83E+03	-144	5.69	151
L1	-5.00E+03	3.39E+03	140	18.8	-109
L3	-5.00E+03	3.39E+03	140	18.6	-109
L4	-5.65E+03	3.21E+03	116	1.44E+03	170
NF	—	—	—	—	—
NS	-498.	1.44E+03	137	85.3	-103

Table H-1754. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-2.06E+03	2.16E+03	-1.98E+03	2.09E+03
A2	-2.06E+03	2.16E+03	-1.98E+03	2.09E+03
FD	-1.82E+03	1.82E+03	-1.76E+03	1.76E+03
L1	-8.39E+03	-1.60E+03	-8.35E+03	-1.64E+03
L3	-8.39E+03	-1.60E+03	-8.35E+03	-1.64E+03
L4	-8.58E+03	-970.	-8.47E+03	-1.05E+03
NF	—	—	—	—
NS	-1.91E+03	942.	-1.88E+03	922.



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-878. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

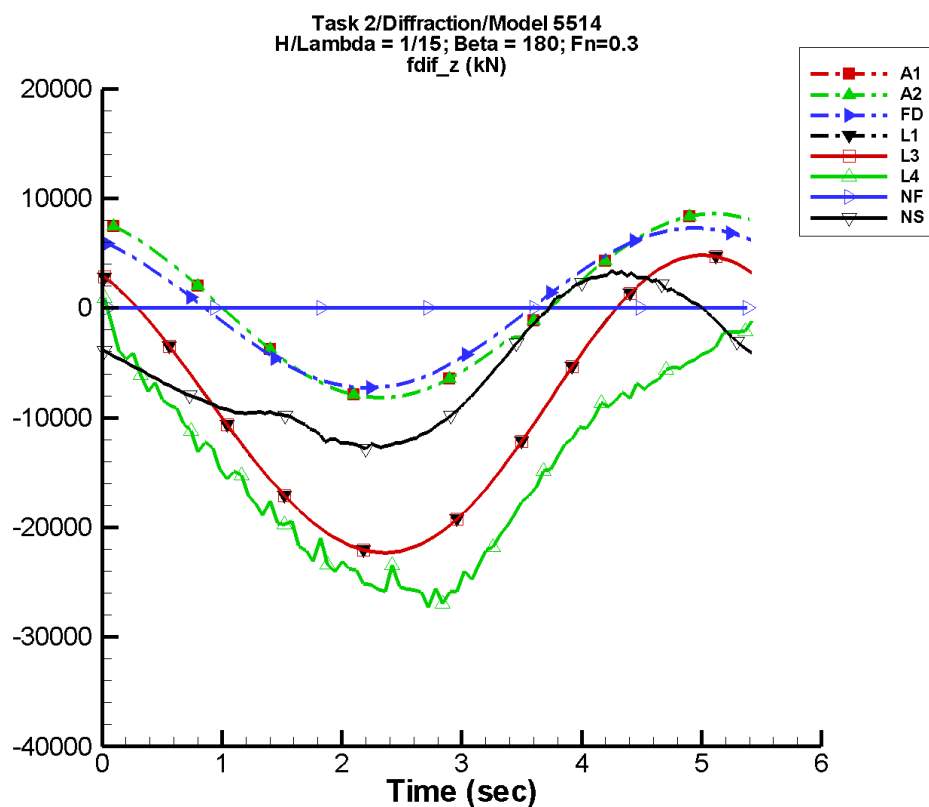
Table H-1755. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	93.4	6.27E+03	121	119.	104
A2	93.4	6.27E+03	121	119.	104
FD	17.1	5.48E+03	-144	17.1	151
L1	-7.13E+03	1.02E+04	140	196.	-123
L3	-7.13E+03	1.02E+04	140	196.	-123
L4	-1.07E+04	9.22E+03	133	442.	174
NF	—	—	—	—	—
NS	-3.58E+03	5.88E+03	149	1.20E+03	-91

Table H-1756. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-6.15E+03	6.47E+03	-5.94E+03	6.25E+03
A2	-6.15E+03	6.47E+03	-5.94E+03	6.25E+03
FD	-5.47E+03	5.47E+03	-5.29E+03	5.29E+03
L1	-1.72E+04	3.18E+03	-1.71E+04	3.05E+03
L3	-1.72E+04	3.18E+03	-1.71E+04	3.05E+03
L4	-2.01E+04	-109.	-1.95E+04	-550.
NF	—	—	—	—
NS	-9.45E+03	2.99E+03	-9.34E+03	2.89E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-879. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

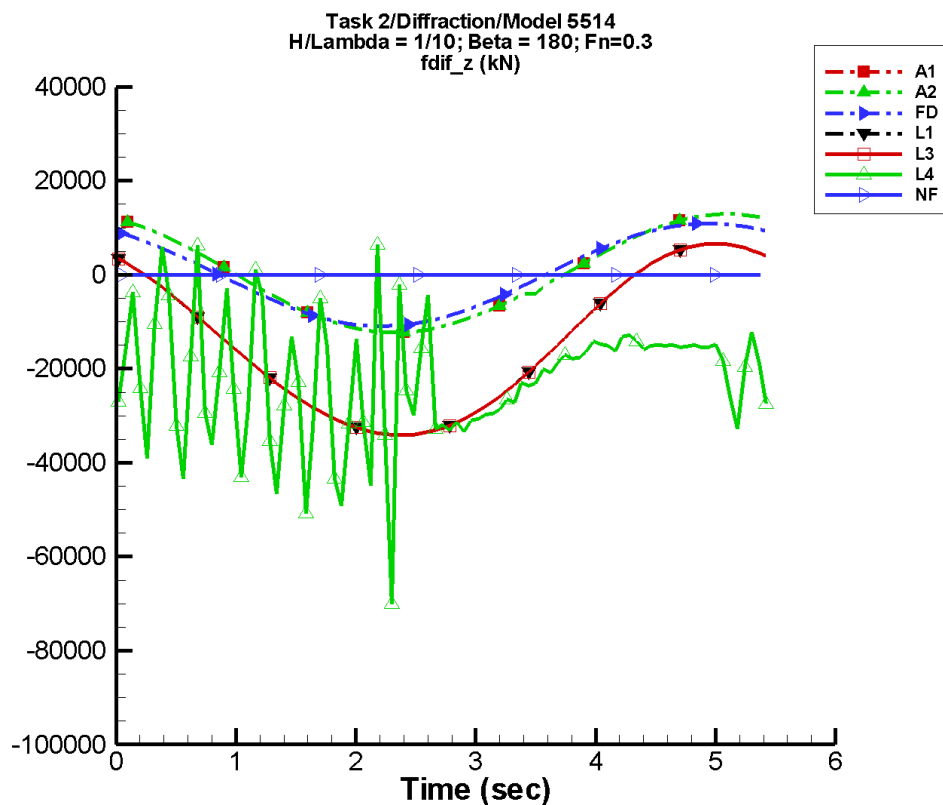
Table H-1757. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	124.	8.35E+03	121	158.	104
A2	124.	8.35E+03	121	158.	104
FD	22.7	7.30E+03	-144	22.8	151
L1	-9.00E+03	1.36E+04	140	357.	-124
L3	-9.00E+03	1.36E+04	140	356.	-124
L4	-1.44E+04	1.15E+04	132	350.	-114
NF	—	—	—	—	—
NS	-5.63E+03	7.28E+03	153	1.97E+03	-97

Table H-1758. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-8.19E+03	8.61E+03	-7.90E+03	8.32E+03
A2	-8.19E+03	8.61E+03	-7.90E+03	8.32E+03
FD	-7.29E+03	7.30E+03	-7.05E+03	7.05E+03
L1	-2.23E+04	4.82E+03	-2.22E+04	4.64E+03
L3	-2.23E+04	4.82E+03	-2.22E+04	4.64E+03
L4	-2.73E+04	890.	-2.60E+04	-951.
NF	—	—	—	—
NS	-1.28E+04	3.37E+03	-1.26E+04	3.09E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-880. Time history of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

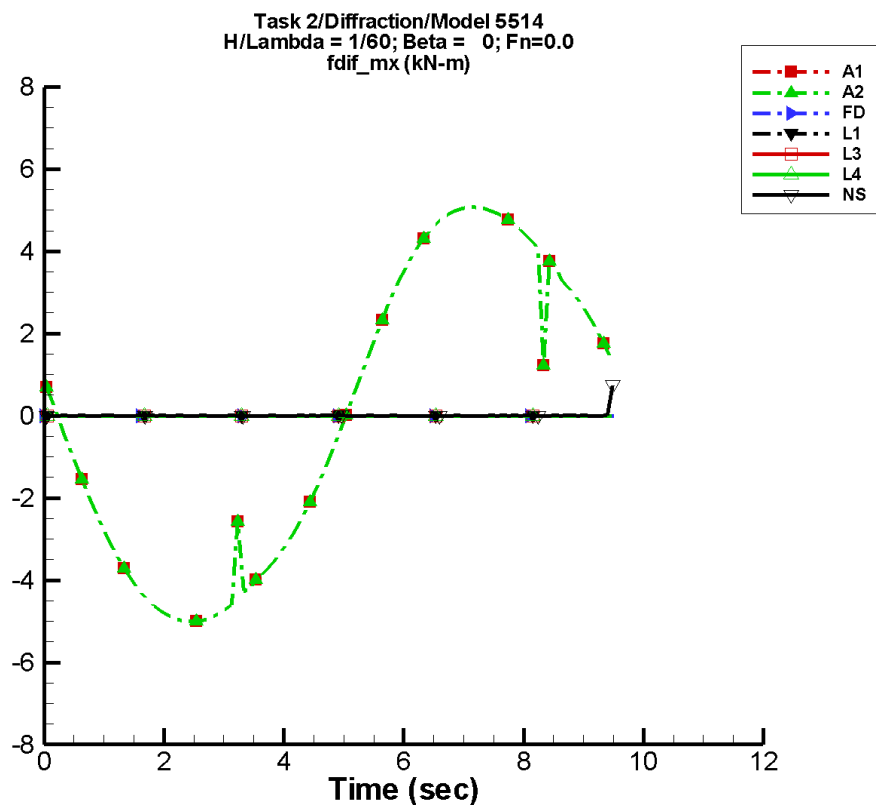
Table H-1759. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN)	$a_1$ (kN)	$\Phi_1$ (deg)	$a_2$ (kN)	$\Phi_2$ (deg)
A1	187.	1.25E+04	121	238.	104
A2	187.	1.25E+04	121	238.	104
FD	34.1	1.10E+04	-144	34.1	151
L1	-1.43E+04	2.03E+04	140	822.	-126
L3	-1.43E+04	2.03E+04	140	821.	-126
L4	-2.28E+04	9.57E+03	168	4.28E+03	-35
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1760. Minimum and maximum of  $F_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN)	Maximum (kN)	Minimum (kN)	Maximum (kN)
A1	-1.23E+04	1.29E+04	-1.19E+04	1.25E+04
A2	-1.23E+04	1.29E+04	-1.19E+04	1.25E+04
FD	-1.09E+04	1.09E+04	-1.06E+04	1.06E+04
L1	-3.41E+04	6.60E+03	-3.39E+04	6.32E+03
L3	-3.41E+04	6.60E+03	-3.39E+04	6.32E+03
L4	-7.01E+04	6.43E+03	-4.62E+04	-2.20E+03
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-881. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1761. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

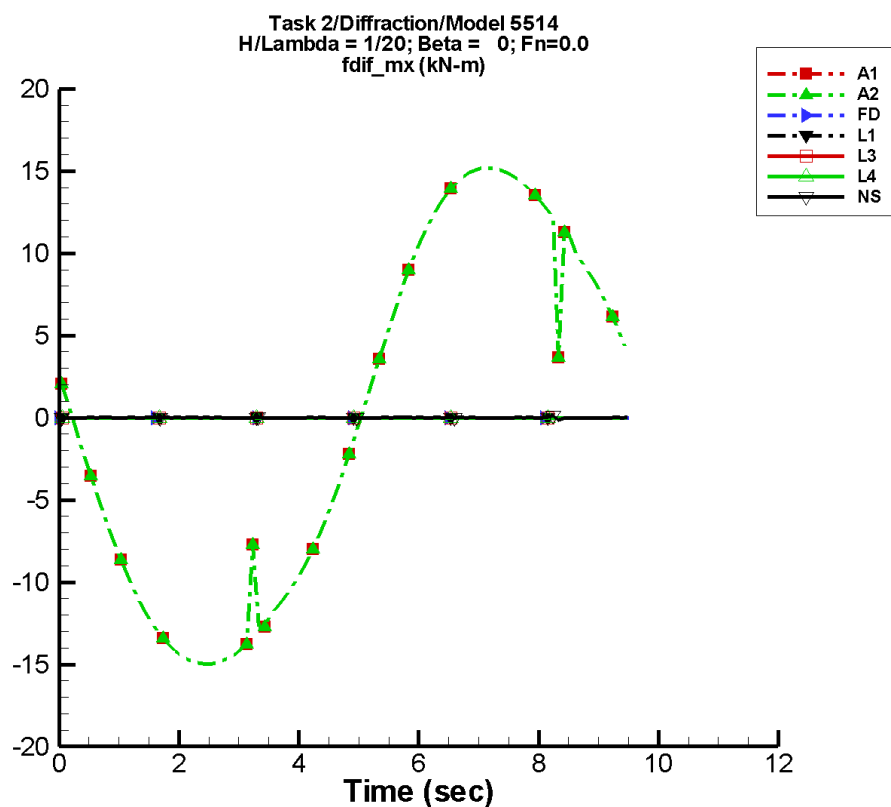
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.32E-02	5.12	168	2.05E-02	47
A2	-1.32E-02	5.12	168	2.05E-02	47
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.63E-04	1.17E-03	147	3.38E-03	152

Table H-1762. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.01	5.08	-4.98	5.04
A2	-5.01	5.08	-4.98	5.04
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.741	0.747	-1.57E-02	2.15E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-882. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

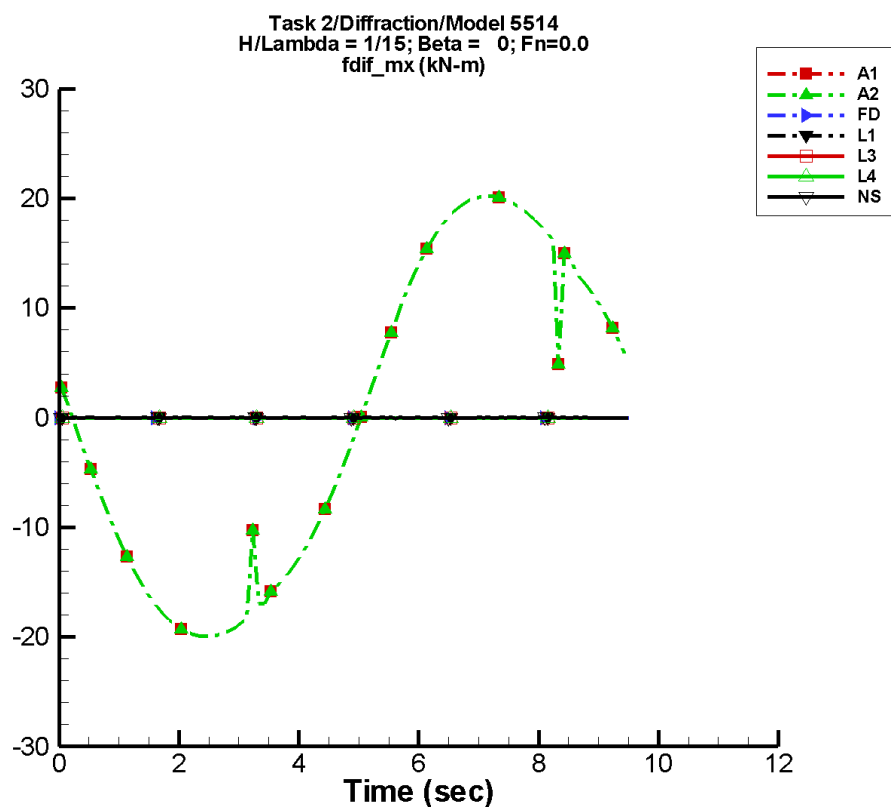
Table H-1763. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.94E-02	15.3	168	6.15E-02	47
A2	-3.94E-02	15.3	168	6.15E-02	47
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.33E-04	3.10E-03	135	4.73E-03	0

Table H-1764. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-15.0	15.2	-14.9	15.1
A2	-15.0	15.2	-14.9	15.1
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.139	0.144	-2.09E-02	1.34E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-883. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

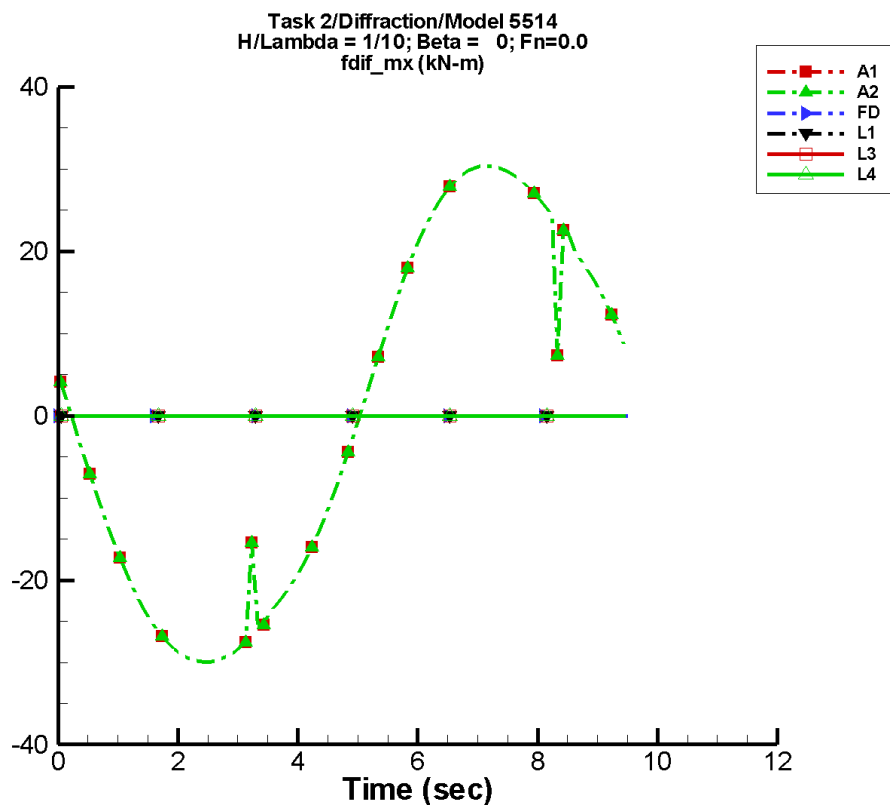
Table H-1765. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-5.25E-02	20.4	168	8.18E-02	47
A2	-5.25E-02	20.4	168	8.18E-02	47
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	5.78E-04	2.19E-03	-162	3.81E-03	-103

Table H-1766. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-19.9	20.2	-19.8	20.1
A2	-19.9	20.2	-19.8	20.1
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.950	0.993	-2.75E-02	2.13E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-884. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

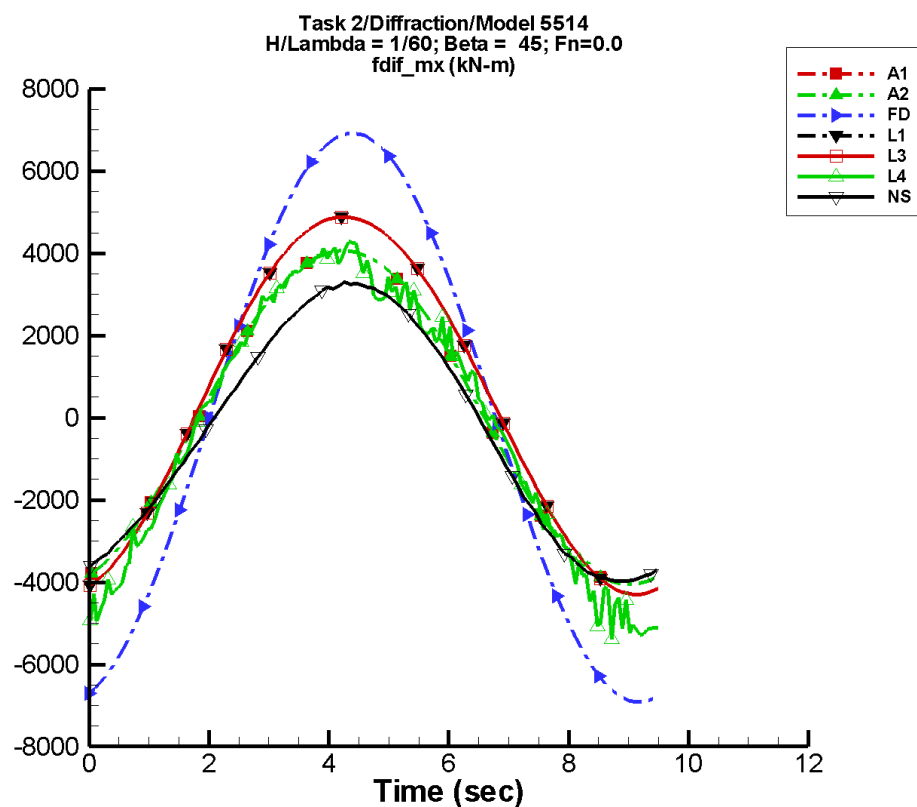
Table H-1767. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-7.89E-02	30.6	168	0.123	47
A2	-7.89E-02	30.6	168	0.123	47
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1768. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-30.0	30.4	-29.8	30.1
A2	-30.0	30.4	-29.8	30.1
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-885. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1769. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

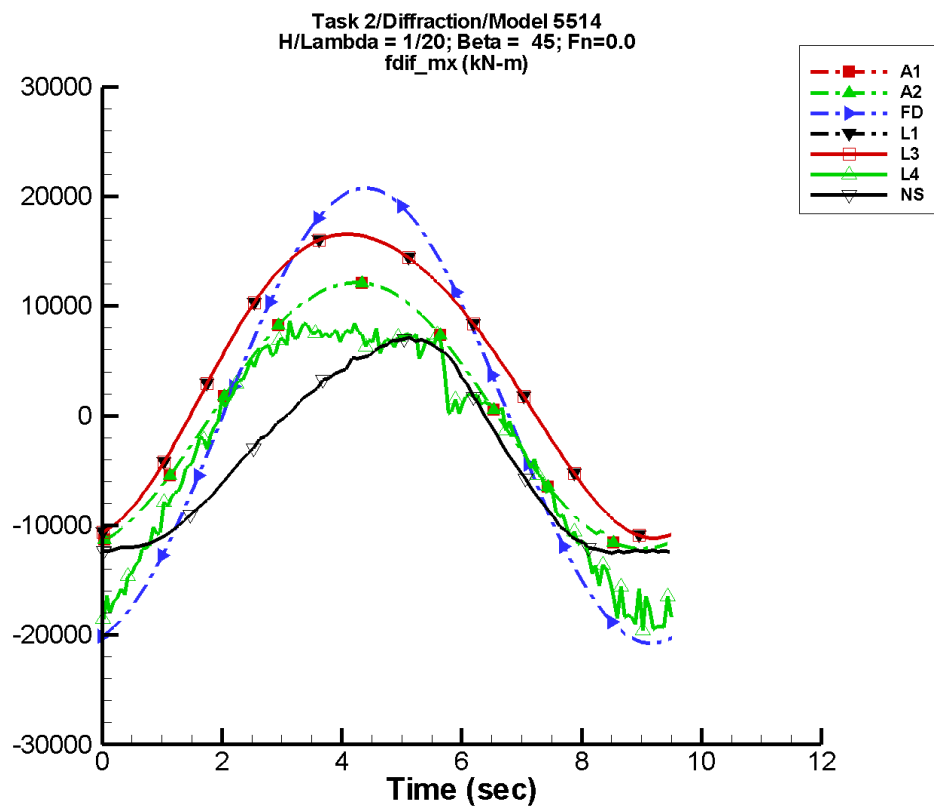
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.22	4.08E+03	-74	7.89	-147
A2	2.22	4.08E+03	-74	7.89	-147
FD	-3.22E-02	6.92E+03	-82	0.130	1
L1	405.	4.59E+03	-76	138.	-99
L3	405.	4.59E+03	-76	138.	-99
L4	-218.	4.37E+03	-75	407.	-90
NF	—	—	—	—	—
NS	-388.	3.58E+03	-71	193.	47

Table H-1770. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.05E+03	4.06E+03	-4.01E+03	4.02E+03
A2	-4.05E+03	4.06E+03	-4.01E+03	4.02E+03
FD	-6.92E+03	6.92E+03	-6.84E+03	6.84E+03
L1	-4.30E+03	4.88E+03	-4.28E+03	4.87E+03
L3	-4.30E+03	4.88E+03	-4.28E+03	4.87E+03
L4	-5.38E+03	4.30E+03	-5.14E+03	4.07E+03
NF	—	—	—	—
NS	-3.98E+03	3.30E+03	-3.94E+03	3.22E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-886. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

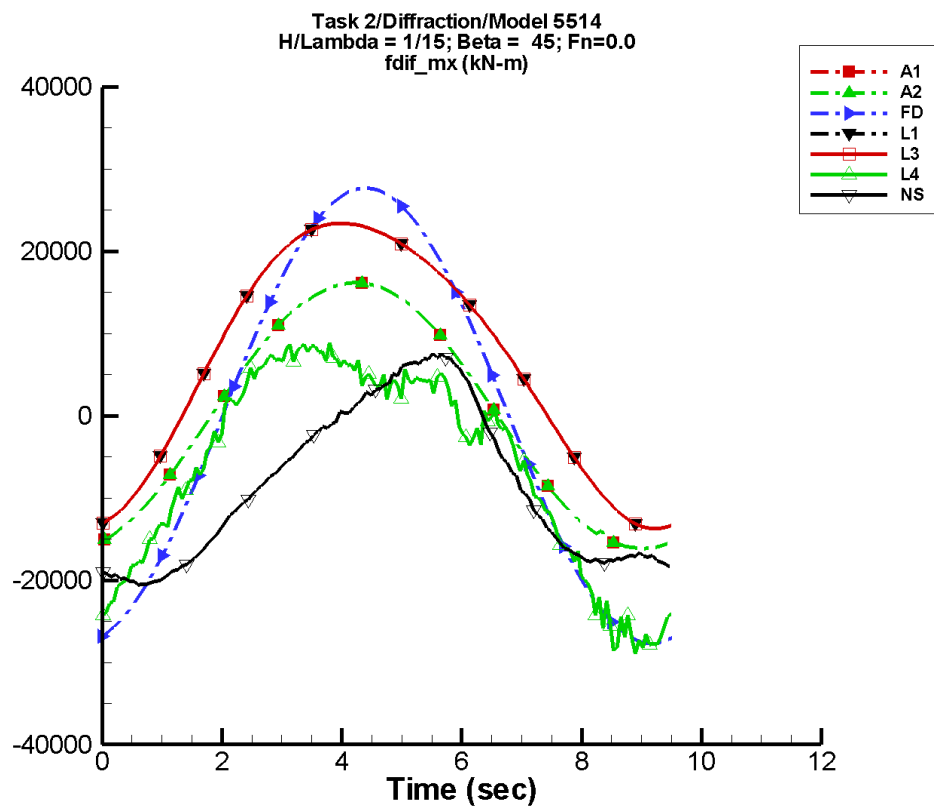
Table H-1771. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.65	1.22E+04	-74	23.6	-147
A2	6.65	1.22E+04	-74	23.6	-147
FD	-9.66E-02	2.08E+04	-82	0.393	1
L1	3.65E+03	1.38E+04	-76	1.23E+03	-100
L3	3.65E+03	1.38E+04	-76	1.23E+03	-100
L4	-2.80E+03	1.27E+04	-74	2.70E+03	-80
NF	—	—	—	—	—
NS	-4.07E+03	9.95E+03	-86	1.39E+03	58

Table H-1772. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.21E+04	1.21E+04	-1.20E+04	1.20E+04
A2	-1.21E+04	1.21E+04	-1.20E+04	1.20E+04
FD	-2.08E+04	2.08E+04	-2.05E+04	2.05E+04
L1	-1.12E+04	1.65E+04	-1.11E+04	1.65E+04
L3	-1.12E+04	1.65E+04	-1.11E+04	1.65E+04
L4	-1.96E+04	8.66E+03	-1.84E+04	7.79E+03
NF	—	—	—	—
NS	-1.25E+04	7.10E+03	-1.24E+04	6.84E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-887. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

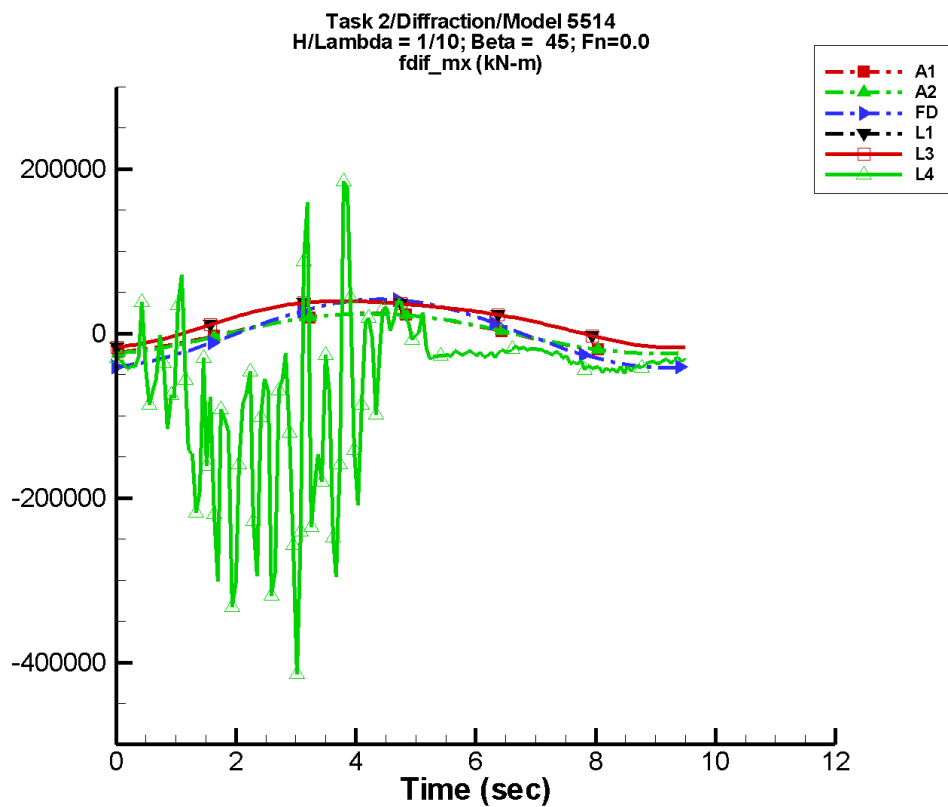
Table H-1773. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	8.86	1.63E+04	-74	31.4	-147
A2	8.86	1.63E+04	-74	31.4	-147
FD	-0.129	2.77E+04	-82	0.522	1
L1	6.50E+03	1.84E+04	-76	2.18E+03	-100
L3	6.50E+03	1.84E+04	-76	2.18E+03	-100
L4	-6.24E+03	1.61E+04	-71	4.02E+03	-73
NF	—	—	—	—	—
NS	-8.76E+03	1.30E+04	-97	2.07E+03	55

Table H-1774. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.61E+04	1.62E+04	-1.60E+04	1.60E+04
A2	-1.61E+04	1.62E+04	-1.60E+04	1.60E+04
FD	-2.77E+04	2.77E+04	-2.74E+04	2.74E+04
L1	-1.38E+04	2.34E+04	-1.36E+04	2.33E+04
L3	-1.38E+04	2.34E+04	-1.36E+04	2.33E+04
L4	-2.89E+04	8.91E+03	-2.74E+04	8.11E+03
NF	—	—	—	—
NS	-2.05E+04	7.57E+03	-2.03E+04	7.06E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-888. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

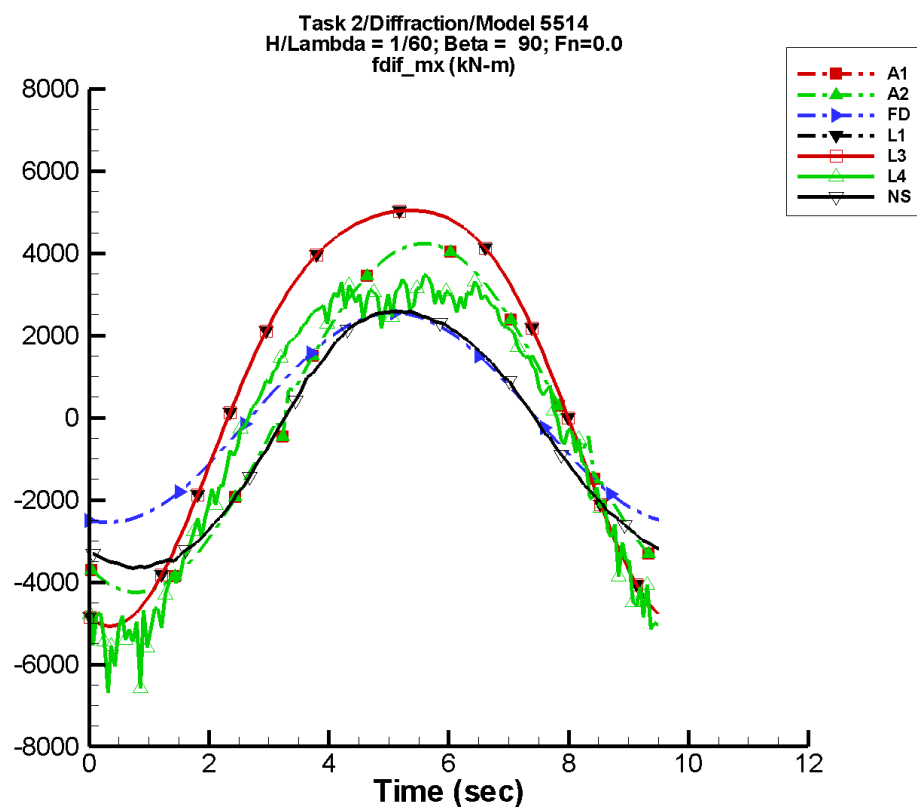
Table H-1775. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	13.3	2.44E+04	-74	47.2	-147
A2	-88.8	2.48E+04	-71	243.	-121
FD	-0.193	4.15E+04	-82	0.787	1
L1	1.46E+04	2.75E+04	-76	4.91E+03	-100
L3	1.46E+04	2.75E+04	-76	4.91E+03	-100
L4	-5.93E+04	5.96E+04	-174	4.66E+04	78
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1776. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.42E+04	2.43E+04	-2.40E+04	2.40E+04
A2	-2.46E+04	2.48E+04	-2.43E+04	2.45E+04
FD	-4.15E+04	4.15E+04	-4.10E+04	4.11E+04
L1	-1.72E+04	3.94E+04	-1.71E+04	3.93E+04
L3	-1.72E+04	3.94E+04	-1.71E+04	3.93E+04
L4	-4.15E+05	1.85E+05	-2.42E+05	2.29E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-889. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1777. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

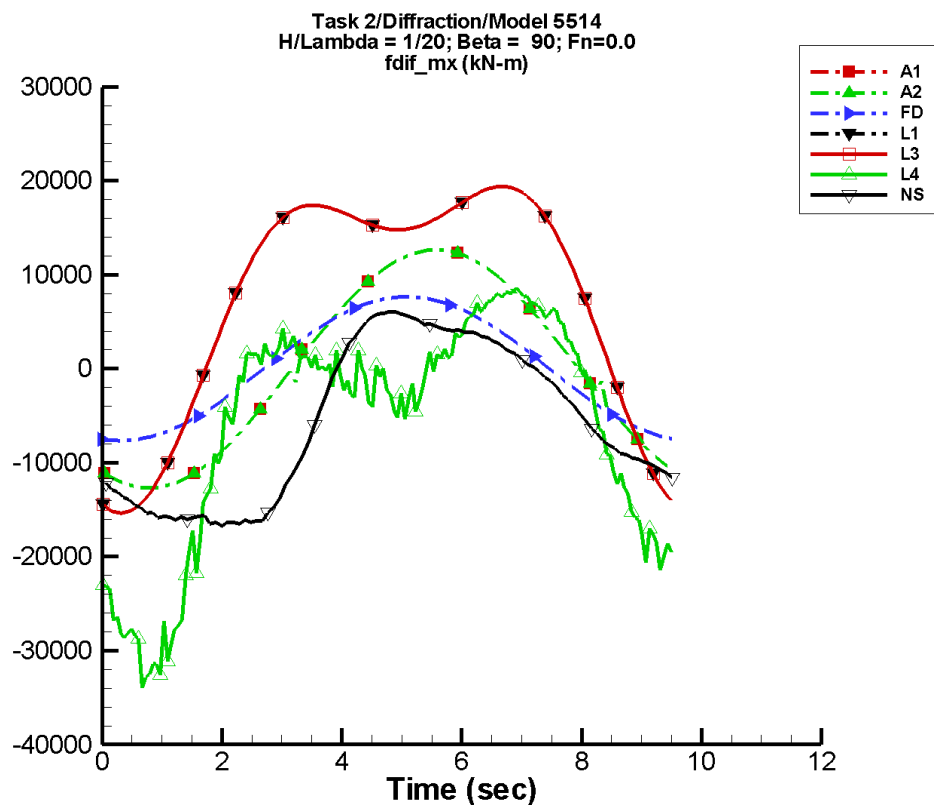
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.81	4.22E+03	-125	10.5	-177
A2	6.81	4.22E+03	-125	10.5	-177
FD	2.73E-02	2.55E+03	-107	5.57E-02	40
L1	789.	5.05E+03	-109	819.	-119
L3	789.	5.05E+03	-109	819.	-119
L4	-257.	4.28E+03	-112	919.	-131
NF	—	—	—	—	—
NS	-567.	3.15E+03	-113	210.	111

Table H-1778. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.24E+03	4.23E+03	-4.20E+03	4.18E+03
A2	-4.24E+03	4.23E+03	-4.20E+03	4.18E+03
FD	-2.55E+03	2.55E+03	-2.57E+03	2.52E+03
L1	-5.07E+03	5.05E+03	-5.04E+03	5.04E+03
L3	-5.07E+03	5.05E+03	-5.04E+03	5.04E+03
L4	-6.69E+03	3.57E+03	-5.49E+03	3.23E+03
NF	—	—	—	—
NS	-3.67E+03	2.59E+03	-3.61E+03	2.56E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-890. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

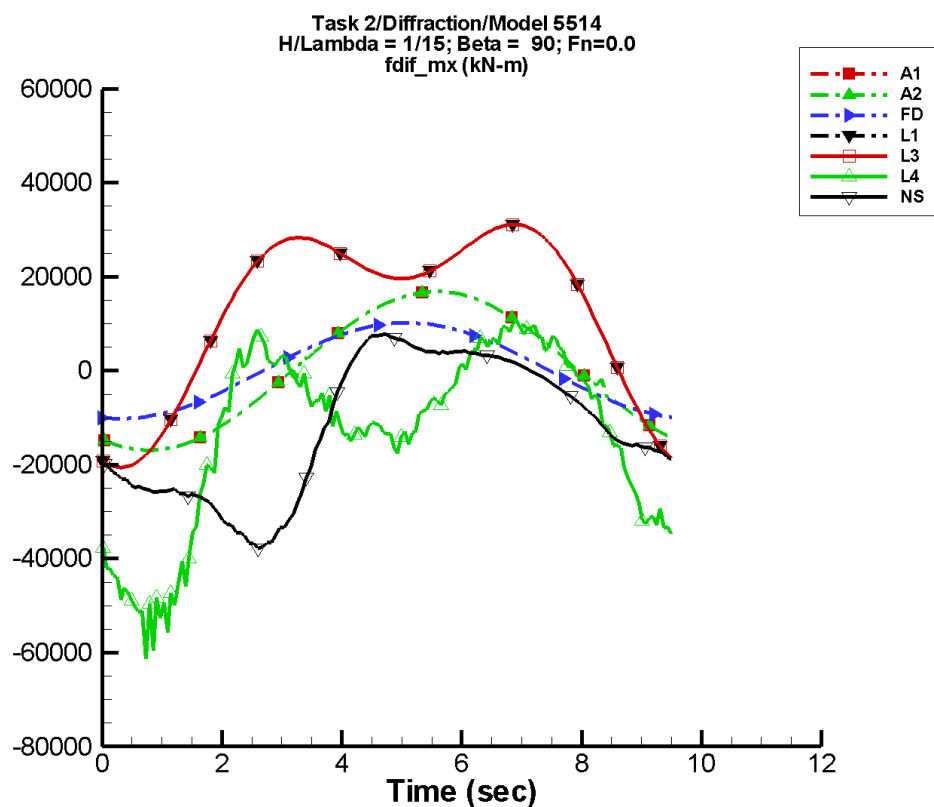
Table H-1779. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	20.4	1.26E+04	-125	31.3	-177
A2	20.4	1.26E+04	-125	31.3	-177
FD	8.17E-02	7.64E+03	-107	0.167	40
L1	7.10E+03	1.51E+04	-109	7.37E+03	-119
L3	7.10E+03	1.51E+04	-109	7.37E+03	-119
L4	-6.07E+03	1.37E+04	-121	9.52E+03	-125
NF	—	—	—	—	—
NS	-5.73E+03	1.10E+04	-132	2.42E+03	82

Table H-1780. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.27E+04	1.27E+04	-1.26E+04	1.25E+04
A2	-1.27E+04	1.27E+04	-1.26E+04	1.25E+04
FD	-7.64E+03	7.64E+03	-7.70E+03	7.56E+03
L1	-1.54E+04	1.94E+04	-1.52E+04	1.93E+04
L3	-1.54E+04	1.94E+04	-1.52E+04	1.93E+04
L4	-3.39E+04	8.61E+03	-3.14E+04	8.22E+03
NF	—	—	—	—
NS	-1.67E+04	6.08E+03	-1.64E+04	5.76E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-891. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

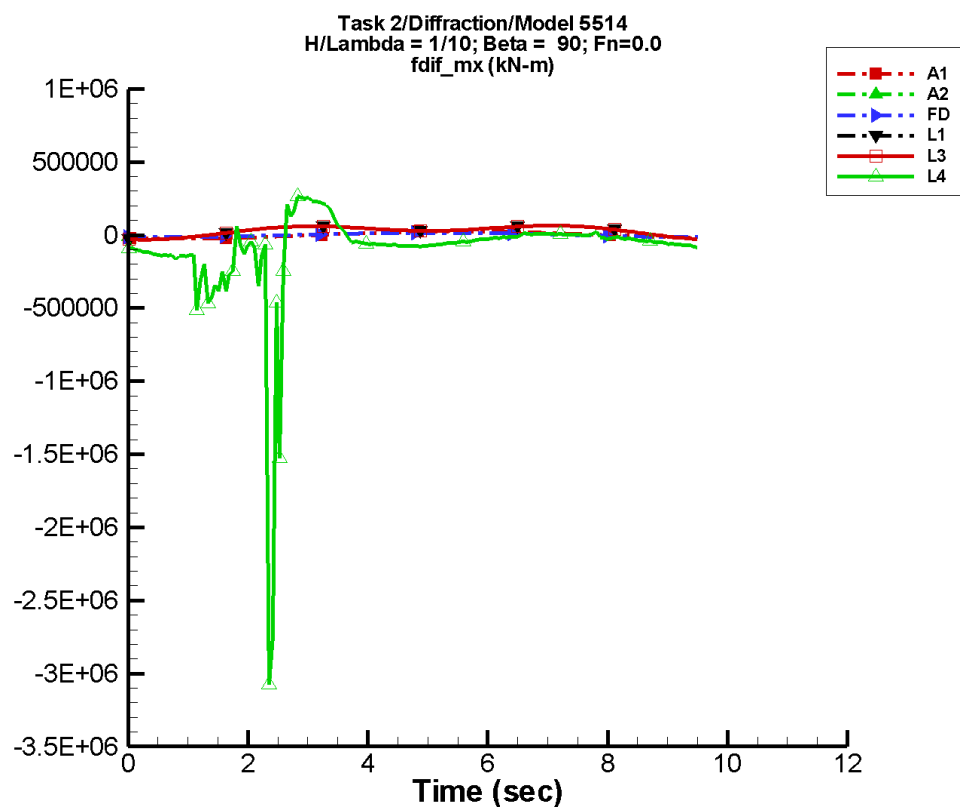
Table H-1781. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	27.1	1.68E+04	-125	41.6	-177
A2	27.1	1.68E+04	-125	41.6	-177
FD	0.110	1.02E+04	-107	0.223	39
L1	1.26E+04	2.01E+04	-109	1.31E+04	-119
L3	1.26E+04	2.01E+04	-109	1.31E+04	-119
L4	-1.37E+04	1.86E+04	-124	1.79E+04	-121
NF	—	—	—	—	—
NS	-1.21E+04	1.83E+04	-143	5.56E+03	68

Table H-1782. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.69E+04	1.69E+04	-1.67E+04	1.67E+04
A2	-1.69E+04	1.69E+04	-1.67E+04	1.67E+04
FD	-1.02E+04	1.02E+04	-1.03E+04	1.01E+04
L1	-2.07E+04	3.11E+04	-2.04E+04	3.09E+04
L3	-2.07E+04	3.11E+04	-2.04E+04	3.09E+04
L4	-6.13E+04	1.07E+04	-5.31E+04	9.27E+03
NF	—	—	—	—
NS	-3.78E+04	7.73E+03	-3.65E+04	7.24E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-892. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

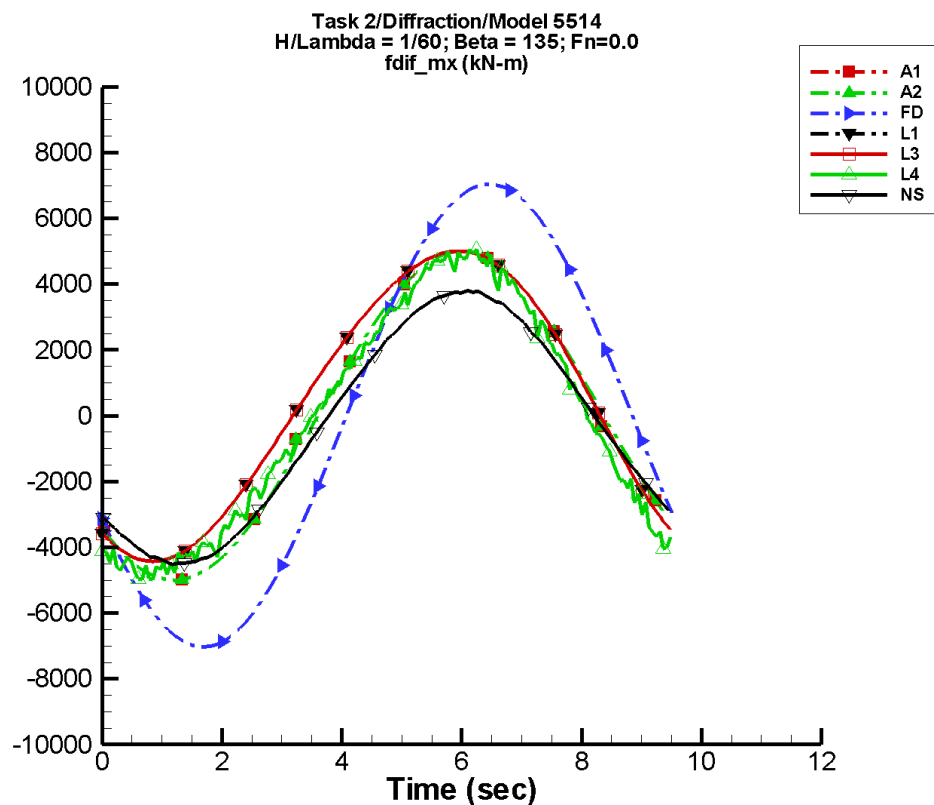
Table H-1783. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	40.8	2.52E+04	-125	62.6	-177
A2	2.63E+04	1.21E+05	99	7.57E+04	164
FD	0.163	1.53E+04	-107	0.334	40
L1	2.84E+04	3.02E+04	-108	2.95E+04	-119
L3	2.84E+04	3.02E+04	-108	2.95E+04	-119
L4	-9.48E+04	1.40E+05	-163	1.11E+05	143
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1784. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.54E+04	2.53E+04	-2.51E+04	2.50E+04
A2	-1.51E+04	-1.39E+04	-1.51E+04	-1.39E+04
FD	-1.53E+04	1.53E+04	-1.54E+04	1.51E+04
L1	-3.14E+04	6.43E+04	-3.08E+04	6.38E+04
L3	-3.14E+04	6.43E+04	-3.08E+04	6.38E+04
L4	-3.07E+06	2.78E+05	-1.05E+06	3.01E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-893. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1785. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

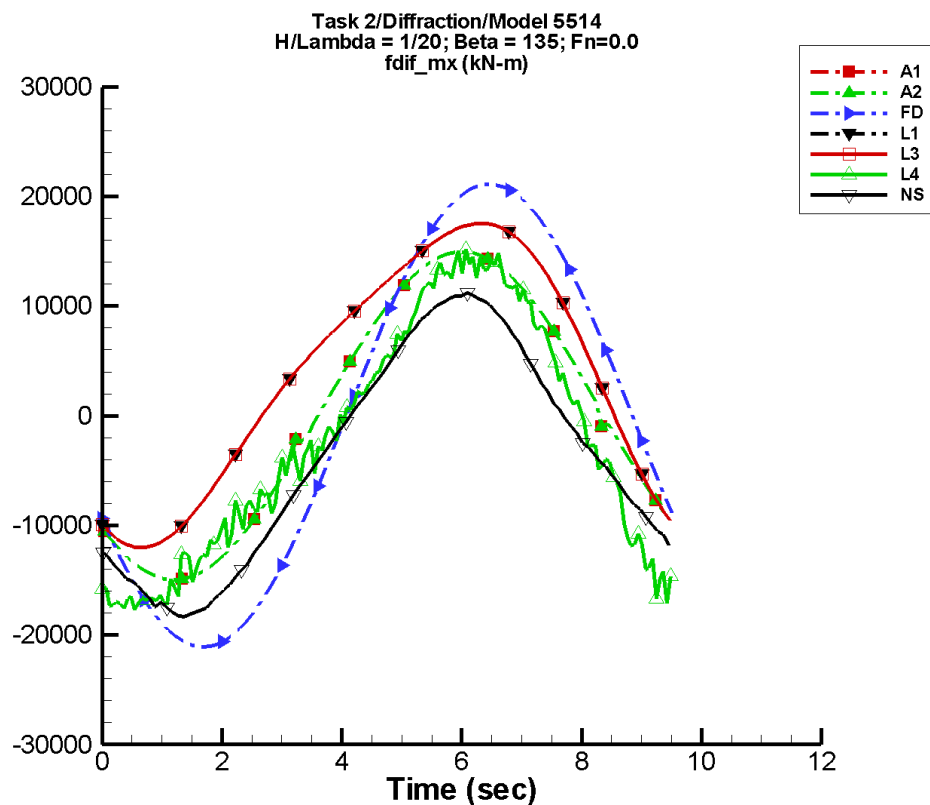
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.28	4.95E+03	-141	8.87	-159
A2	4.28	4.95E+03	-141	8.87	-159
FD	0.228	7.03E+03	-159	0.218	83
L1	417.	4.69E+03	-131	290.	-110
L3	417.	4.69E+03	-131	290.	-110
L4	-131.	4.69E+03	-134	443.	-65
NF	—	—	—	—	—
NS	-386.	4.07E+03	-138	42.8	46

Table H-1786. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.00E+03	5.00E+03	-4.95E+03	4.94E+03
A2	-5.00E+03	5.00E+03	-4.95E+03	4.94E+03
FD	-7.03E+03	7.03E+03	-6.95E+03	6.95E+03
L1	-4.43E+03	5.00E+03	-4.41E+03	4.99E+03
L3	-4.43E+03	5.00E+03	-4.41E+03	4.99E+03
L4	-5.00E+03	5.07E+03	-4.78E+03	4.85E+03
NF	—	—	—	—
NS	-4.52E+03	3.81E+03	-4.45E+03	3.73E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-894. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

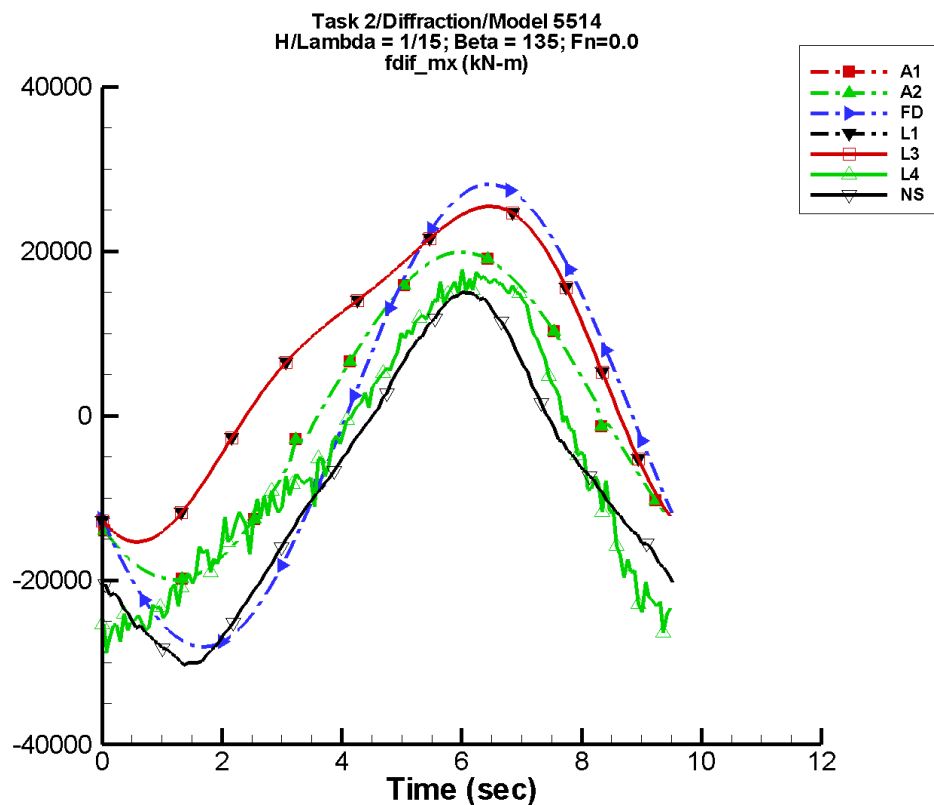
Table H-1787. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	12.8	1.48E+04	-141	26.5	-159
A2	12.8	1.48E+04	-141	26.5	-159
FD	0.685	2.11E+04	-159	0.653	83
L1	3.75E+03	1.41E+04	-131	2.61E+03	-110
L3	3.75E+03	1.41E+04	-131	2.61E+03	-110
L4	-2.35E+03	1.44E+04	-135	3.25E+03	-69
NF	—	—	—	—	—
NS	-4.04E+03	1.36E+04	-136	603.	47

Table H-1788. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.50E+04	1.49E+04	-1.48E+04	1.48E+04
A2	-1.50E+04	1.49E+04	-1.48E+04	1.48E+04
FD	-2.11E+04	2.11E+04	-2.09E+04	2.09E+04
L1	-1.20E+04	1.75E+04	-1.20E+04	1.75E+04
L3	-1.20E+04	1.75E+04	-1.20E+04	1.75E+04
L4	-1.82E+04	1.52E+04	-1.71E+04	1.39E+04
NF	—	—	—	—
NS	-1.83E+04	1.12E+04	-1.79E+04	1.08E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-895. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

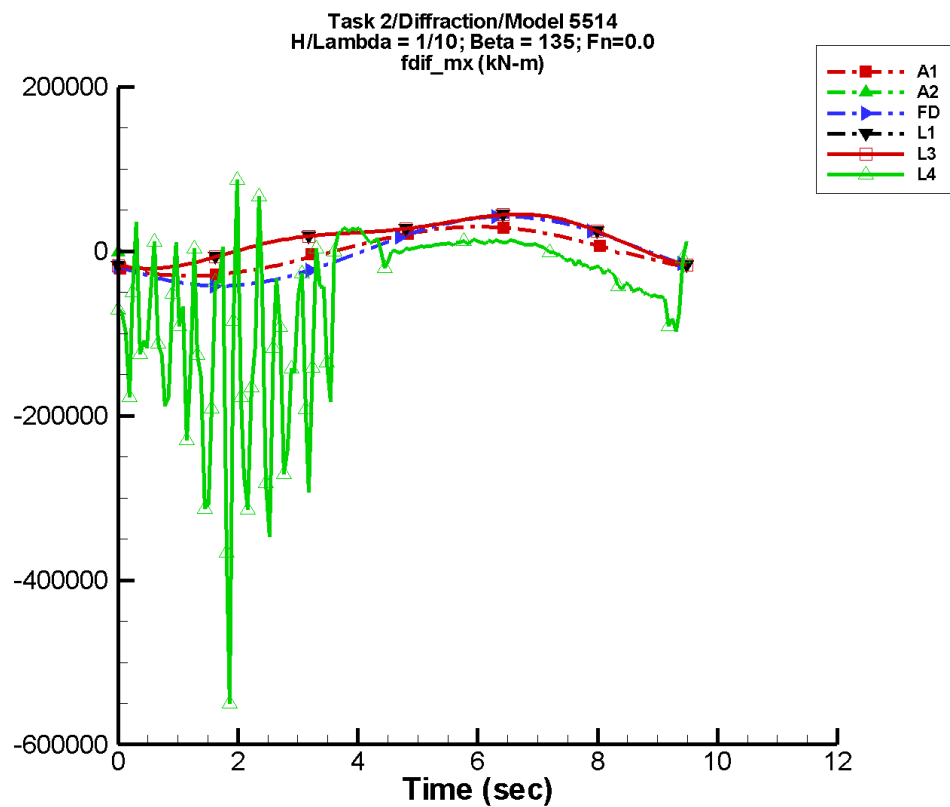
Table H-1789. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	17.1	1.97E+04	-141	35.3	-159
A2	17.1	1.97E+04	-141	35.3	-159
FD	0.913	2.81E+04	-159	0.871	83
L1	6.67E+03	1.88E+04	-131	4.64E+03	-110
L3	6.67E+03	1.88E+04	-131	4.64E+03	-110
L4	-5.56E+03	1.94E+04	-131	5.23E+03	-60
NF	—	—	—	—	—
NS	-8.74E+03	2.01E+04	-138	1.19E+03	37

Table H-1790. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.99E+04	1.99E+04	-1.97E+04	1.97E+04
A2	-1.99E+04	1.99E+04	-1.97E+04	1.97E+04
FD	-2.81E+04	2.81E+04	-2.78E+04	2.78E+04
L1	-1.53E+04	2.55E+04	-1.52E+04	2.54E+04
L3	-1.53E+04	2.55E+04	-1.52E+04	2.54E+04
L4	-2.89E+04	1.77E+04	-2.78E+04	1.65E+04
NF	—	—	—	—
NS	-3.03E+04	1.50E+04	-2.98E+04	1.46E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-896. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

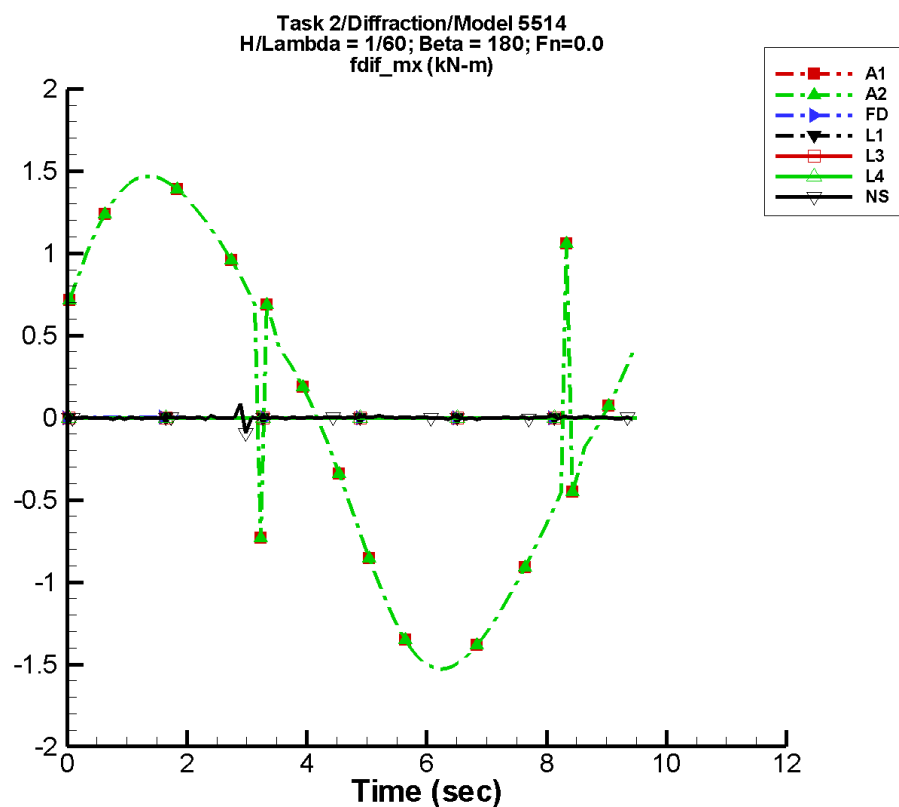
Table H-1791. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	25.6	2.96E+04	-141	53.1	-159
A2	-9.05E+03	3.50E+04	43	2.79E+04	-112
FD	1.37	4.22E+04	-159	1.31	83
L1	1.50E+04	2.81E+04	-131	1.04E+04	-110
L3	1.50E+04	2.81E+04	-131	1.04E+04	-110
L4	-5.28E+04	8.43E+04	-150	3.49E+04	103
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1792. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.99E+04	2.99E+04	-2.96E+04	2.95E+04
A2	-1.05E+03	127.	-1.05E+03	127.
FD	-4.22E+04	4.22E+04	-4.17E+04	4.17E+04
L1	-2.11E+04	4.51E+04	-2.08E+04	4.49E+04
L3	-2.11E+04	4.51E+04	-2.08E+04	4.49E+04
L4	-5.50E+05	8.71E+04	-1.84E+05	2.49E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-897. Time history of  $M_x^{dif}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1793. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

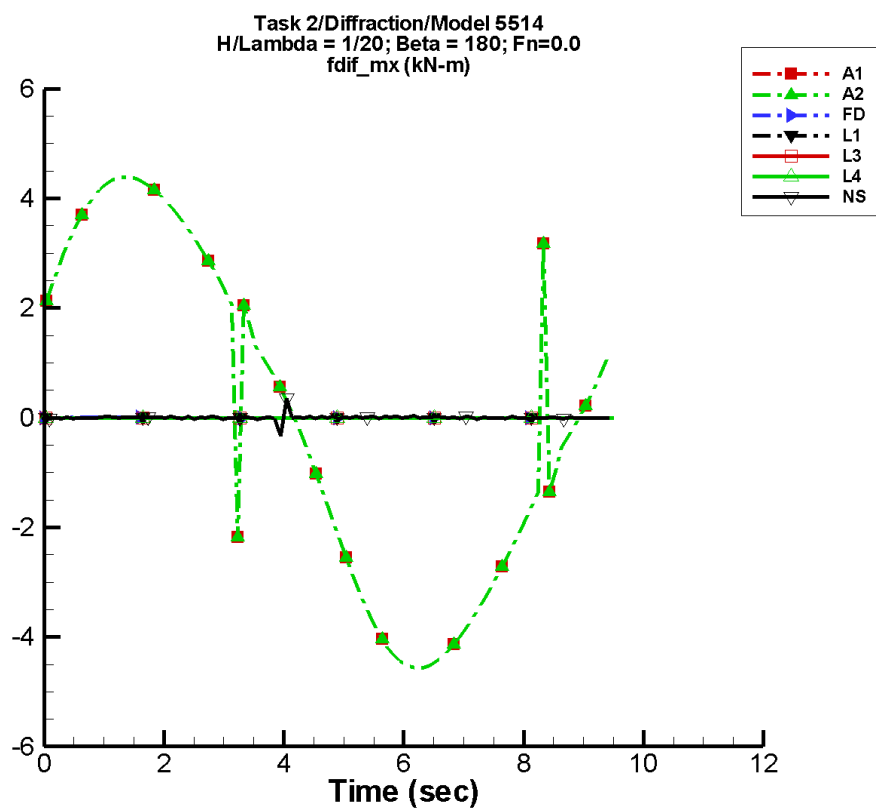
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.71E-03	1.42	24	8.49E-03	59
A2	-3.71E-03	1.42	24	8.49E-03	59
FD	-2.13E-08	8.13E-04	41	2.30E-08	-111
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	6.08E-05	1.08E-03	-89	3.87E-04	168

Table H-1794. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.53	1.55	-1.51	1.54
A2	-1.53	1.55	-1.51	1.54
FD	-8.13E-04	8.13E-04	-8.04E-04	8.05E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.49E-02	8.66E-02	-5.03E-03	4.08E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-898. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

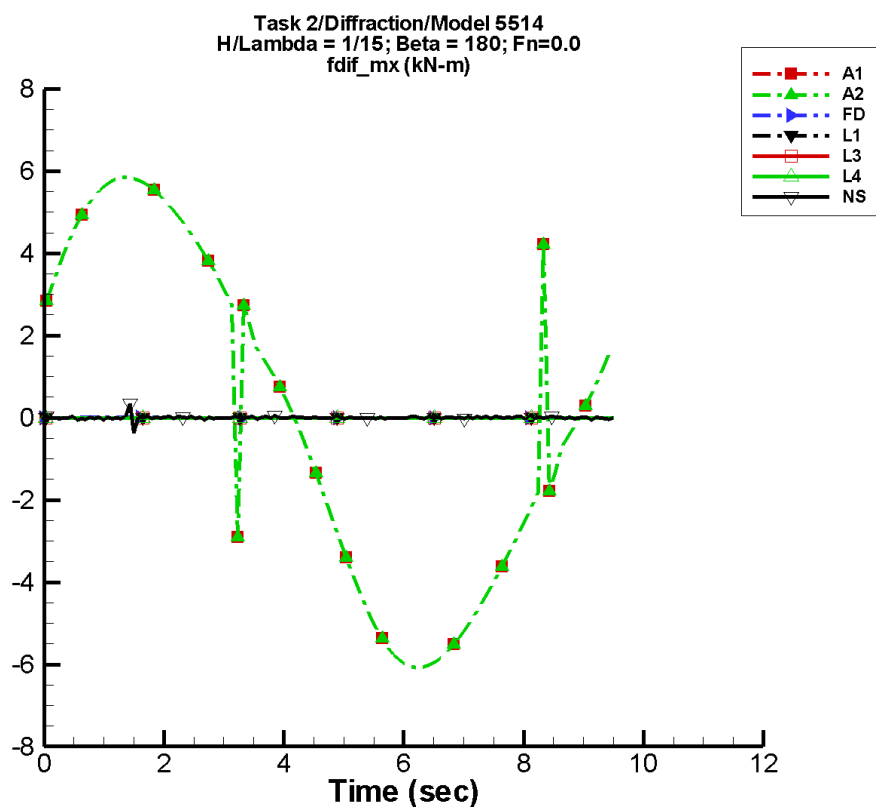
Table H-1795. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.11E-02	4.25	24	2.54E-02	59
A2	-1.11E-02	4.25	24	2.54E-02	59
FD	-6.40E-08	2.44E-03	41	6.90E-08	-111
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.71E-04	4.60E-03	-125	6.09E-03	9

Table H-1796. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.57	4.65	-4.50	4.59
A2	-4.57	4.65	-4.50	4.59
FD	-2.44E-03	2.44E-03	-2.41E-03	2.41E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.333	0.350	-1.46E-02	1.11E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-899. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

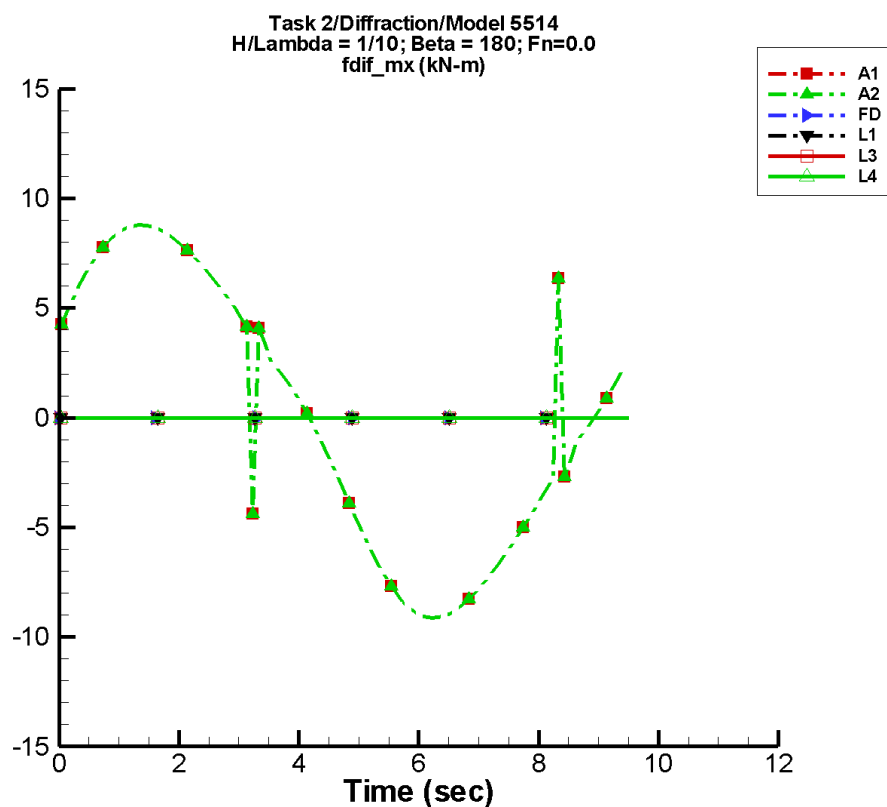
Table H-1797. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.48E-02	5.66	24	3.38E-02	59
A2	-1.48E-02	5.66	24	3.38E-02	59
FD	-8.52E-08	3.25E-03	41	9.20E-08	-111
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	9.64E-04	3.79E-03	-105	9.33E-03	-112

Table H-1798. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.08	6.19	-6.00	6.12
A2	-6.08	6.19	-6.00	6.12
FD	-3.25E-03	3.25E-03	-3.22E-03	3.22E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.374	0.351	-2.18E-02	2.37E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-900. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

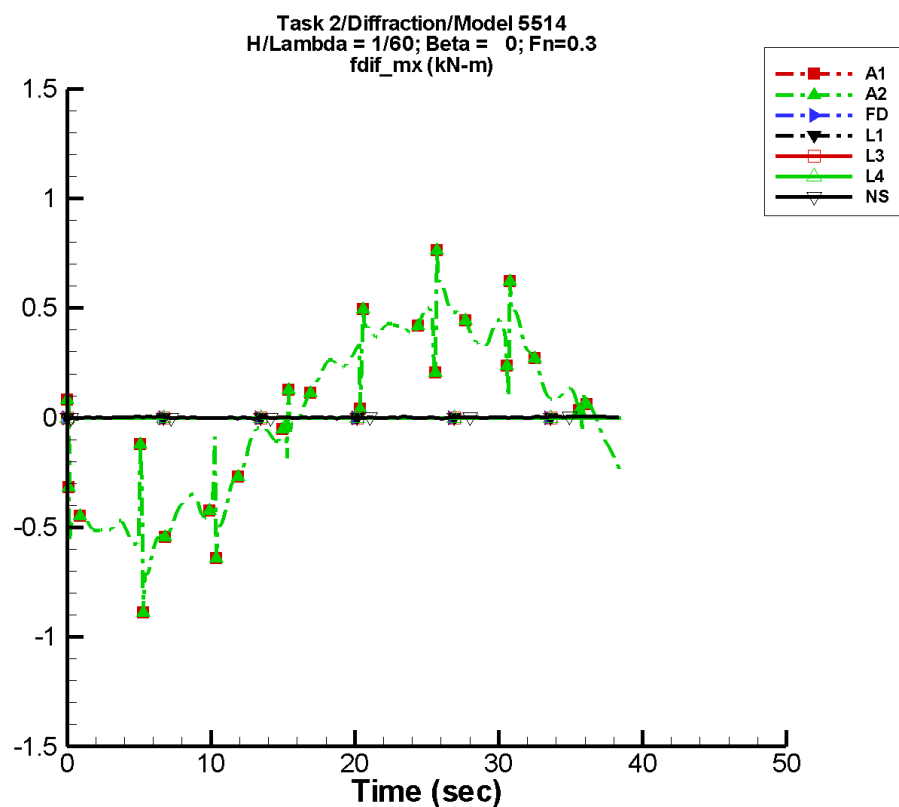
Table H-1799. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.22E-02	8.50	24	5.08E-02	59
A2	-2.22E-02	8.50	24	5.08E-02	59
FD	-1.28E-07	4.88E-03	41	1.38E-07	-111
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1800. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.14	9.30	-9.01	9.19
A2	-9.14	9.30	-9.01	9.19
FD	-4.88E-03	4.88E-03	-4.82E-03	4.83E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-901. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1801. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

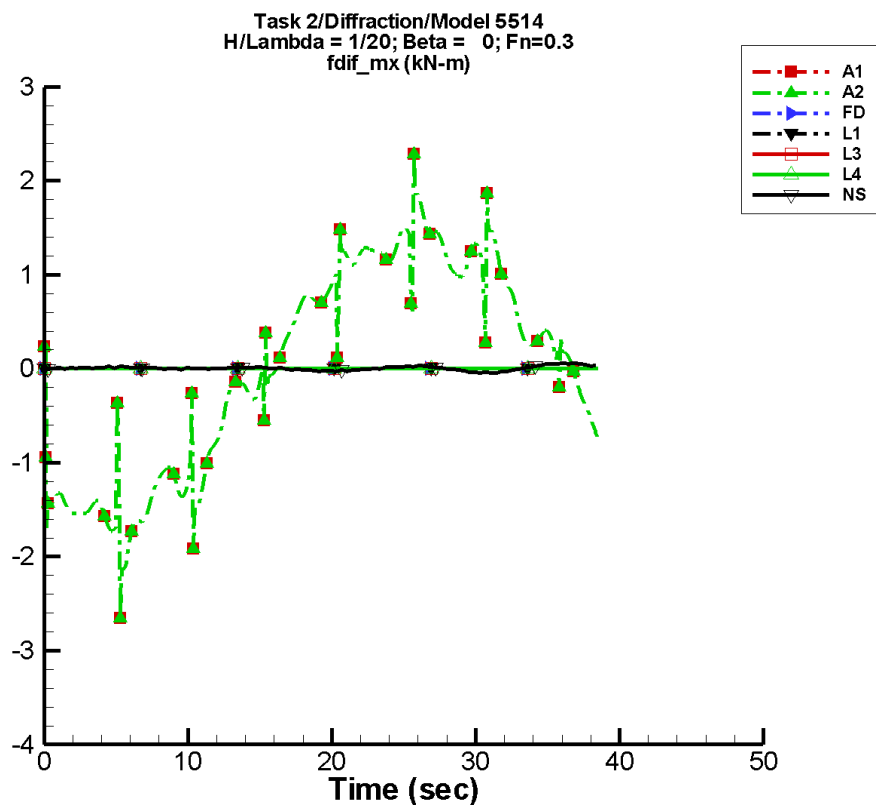
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.91E-03	0.506	-144	5.21E-02	-179
A2	5.91E-03	0.506	-144	5.21E-02	-179
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.15E-04	5.94E-04	137	1.29E-03	-130

Table H-1802. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-0.903	0.764	-0.695	0.579
A2	-0.903	0.764	-0.695	0.579
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.03E-03	7.88E-03	-7.15E-03	5.80E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-902. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

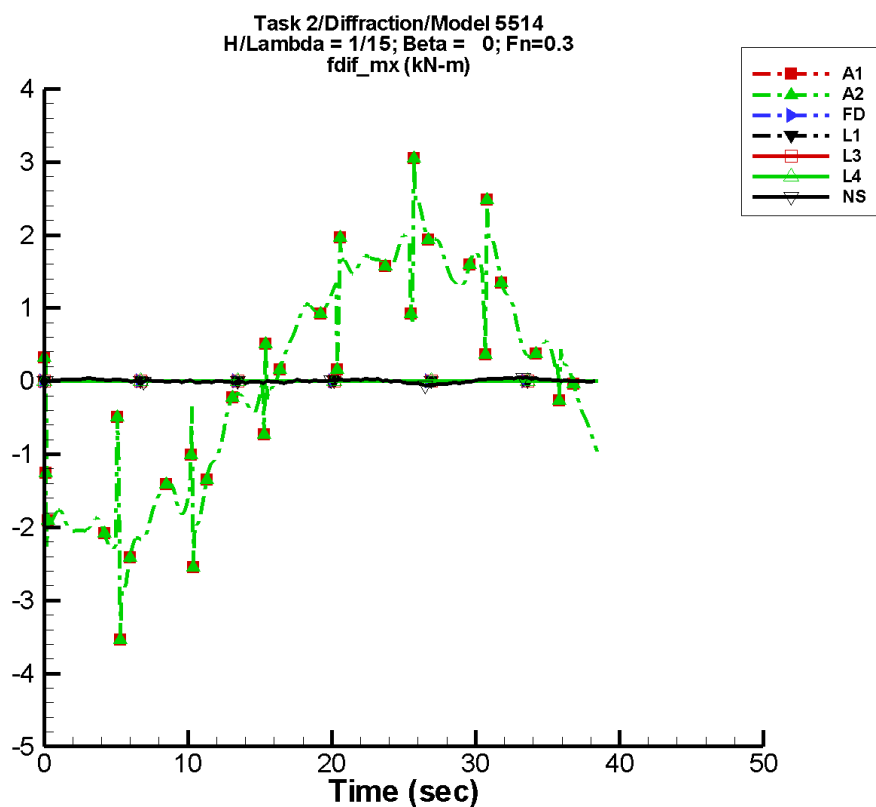
Table H-1803. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.77E-02	1.51	-144	0.156	-179
A2	1.77E-02	1.51	-144	0.156	-179
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	2.28E-03	4.92E-03	79	6.56E-03	164

Table H-1804. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.70	2.29	-2.08	1.73
A2	-2.70	2.29	-2.08	1.73
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-5.19E-02	5.74E-02	-3.78E-02	5.20E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-903. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

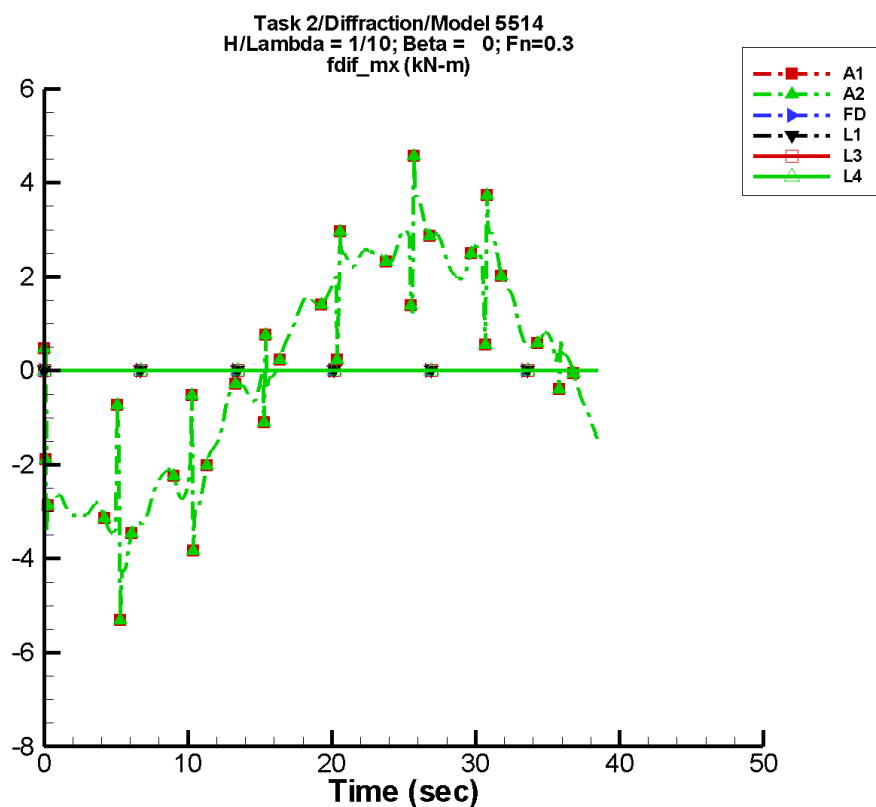
Table H-1805. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.35E-02	2.02	-144	0.208	-179
A2	2.35E-02	2.02	-144	0.208	-179
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.90E-04	5.79E-03	133	1.09E-02	156

Table H-1806. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.60	3.04	-2.77	2.31
A2	-3.60	3.04	-2.77	2.31
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-6.29E-02	5.25E-02	-4.52E-02	4.08E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-904. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

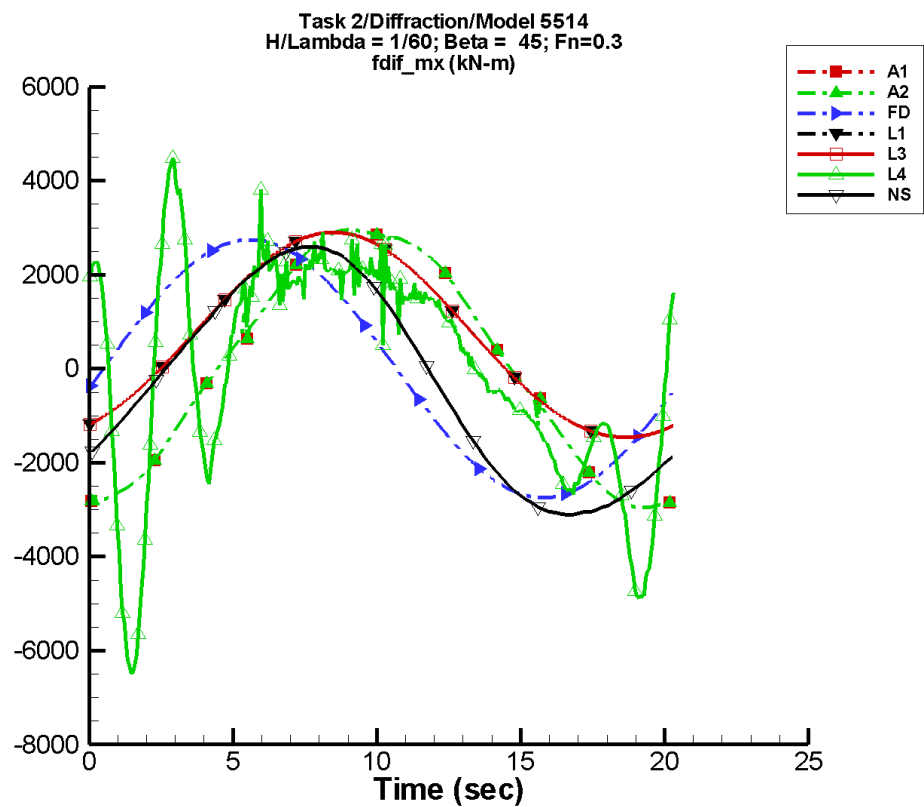
Table H-1807. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.54E-02	3.03	-144	0.312	-179
A2	3.54E-02	3.03	-144	0.312	-179
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1808. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.40	4.57	-4.16	3.47
A2	-5.40	4.57	-4.16	3.47
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-905. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H–1809. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

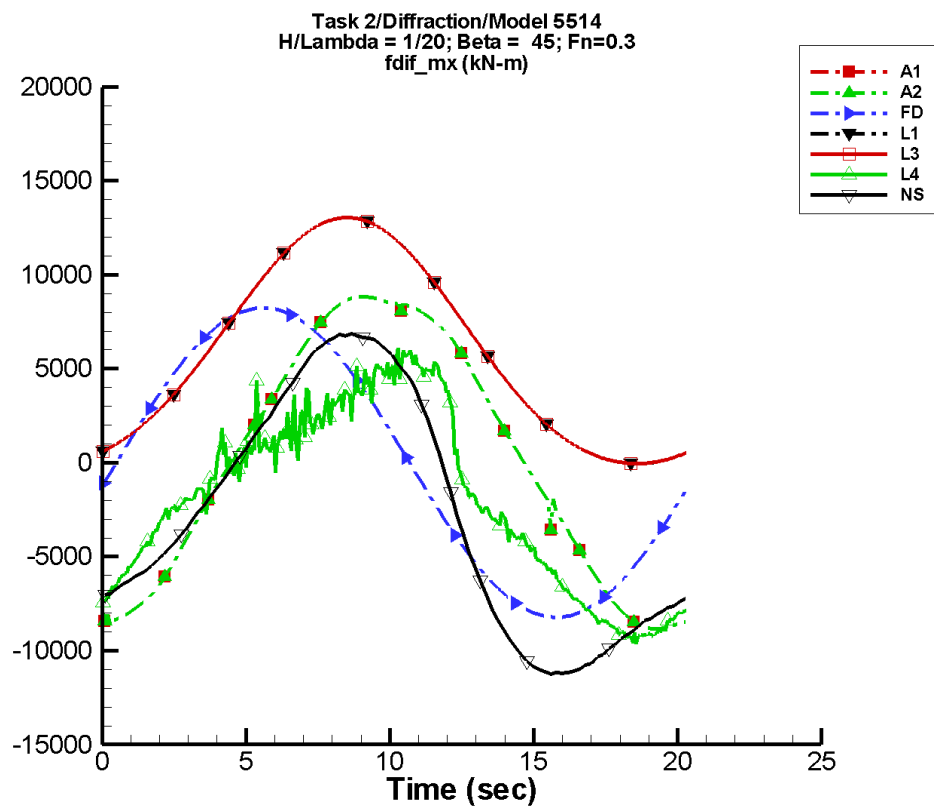
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.83	2.98E+03	-88	8.81	-148
A2	3.83	2.98E+03	-88	8.81	-148
FD	-1.15	2.74E+03	-20	4.19	-57
L1	655.	2.18E+03	-64	67.0	138
L3	655.	2.18E+03	-64	67.1	138
L4	0.465	2.25E+03	-63	95.2	37
NF	—	—	—	—	—
NS	-354.	2.81E+03	-37	266.	127

Table H–1810. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.95E+03	2.95E+03	-2.94E+03	2.94E+03
A2	-2.95E+03	2.95E+03	-2.94E+03	2.94E+03
FD	-2.74E+03	2.74E+03	-2.74E+03	2.74E+03
L1	-1.46E+03	2.90E+03	-1.46E+03	2.90E+03
L3	-1.46E+03	2.90E+03	-1.46E+03	2.90E+03
L4	-6.55E+03	4.57E+03	-6.24E+03	4.19E+03
NF	—	—	—	—
NS	-3.12E+03	2.59E+03	-3.08E+03	2.56E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-906. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

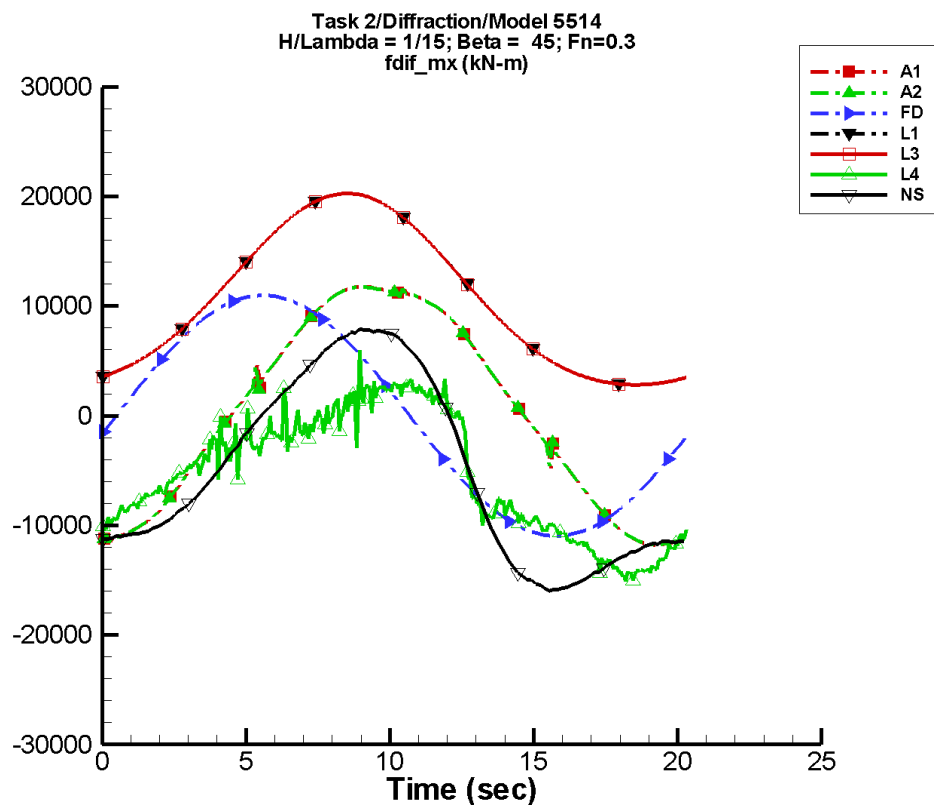
Table H-1811. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	11.5	8.91E+03	-88	26.4	-148
A2	11.5	8.91E+03	-88	26.4	-148
FD	-3.45	8.23E+03	-20	12.6	-57
L1	5.90E+03	6.54E+03	-64	601.	138
L3	5.90E+03	6.54E+03	-64	601.	138
L4	-2.01E+03	6.43E+03	-65	1.29E+03	24
NF	—	—	—	—	—
NS	-2.96E+03	8.41E+03	-46	2.34E+03	119

Table H-1812. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.84E+03	8.84E+03	-8.81E+03	8.81E+03
A2	-8.84E+03	8.84E+03	-8.81E+03	8.81E+03
FD	-8.23E+03	8.23E+03	-8.21E+03	8.21E+03
L1	-46.4	1.30E+04	-42.5	1.30E+04
L3	-46.5	1.30E+04	-42.6	1.30E+04
L4	-9.62E+03	6.09E+03	-9.30E+03	5.66E+03
NF	—	—	—	—
NS	-1.13E+04	6.85E+03	-1.11E+04	6.71E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-907. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

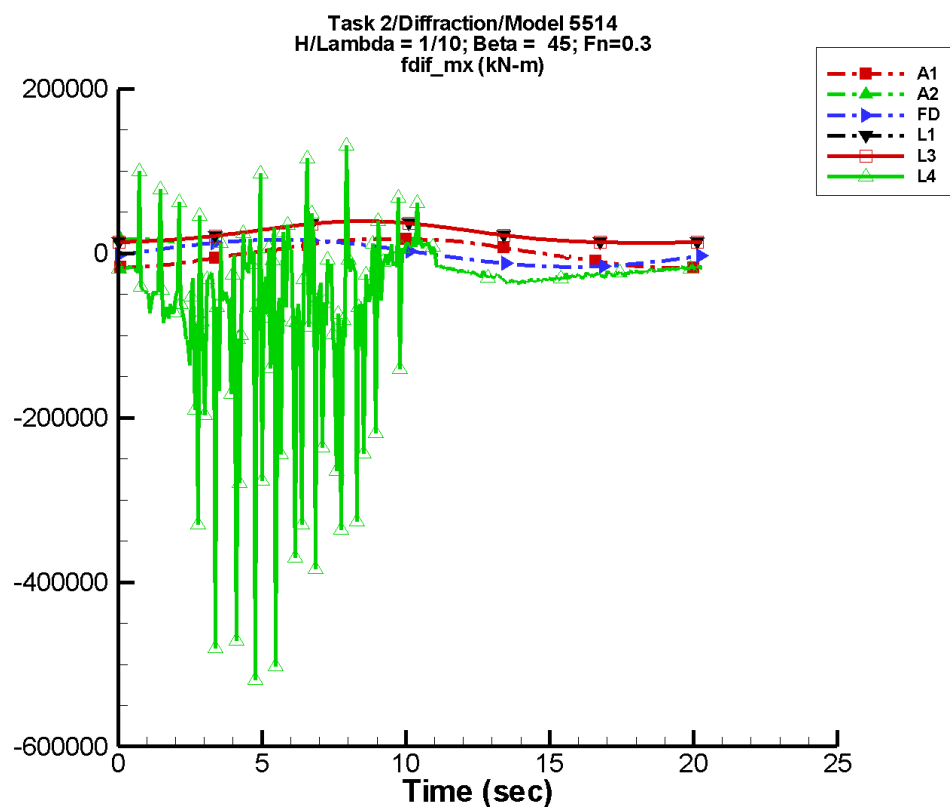
Table H-1813. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	15.3	1.19E+04	-88	35.1	-148
A2	31.1	1.18E+04	-84	25.0	-78
FD	-4.60	1.10E+04	-20	16.8	-57
L1	1.05E+04	8.72E+03	-64	1.07E+03	138
L3	1.05E+04	8.72E+03	-64	1.07E+03	138
L4	-5.49E+03	7.32E+03	-60	1.78E+03	35
NF	—	—	—	—	—
NS	-5.31E+03	1.08E+04	-55	3.46E+03	114

Table H-1814. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.18E+04	1.18E+04	-1.17E+04	1.17E+04
A2	-1.18E+04	1.18E+04	-1.17E+04	1.17E+04
FD	-1.10E+04	1.10E+04	-1.09E+04	1.09E+04
L1	2.83E+03	2.03E+04	2.83E+03	2.03E+04
L3	2.83E+03	2.03E+04	2.83E+03	2.03E+04
L4	-1.51E+04	6.43E+03	-1.45E+04	2.82E+03
NF	—	—	—	—
NS	-1.60E+04	7.90E+03	-1.57E+04	7.72E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-908. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

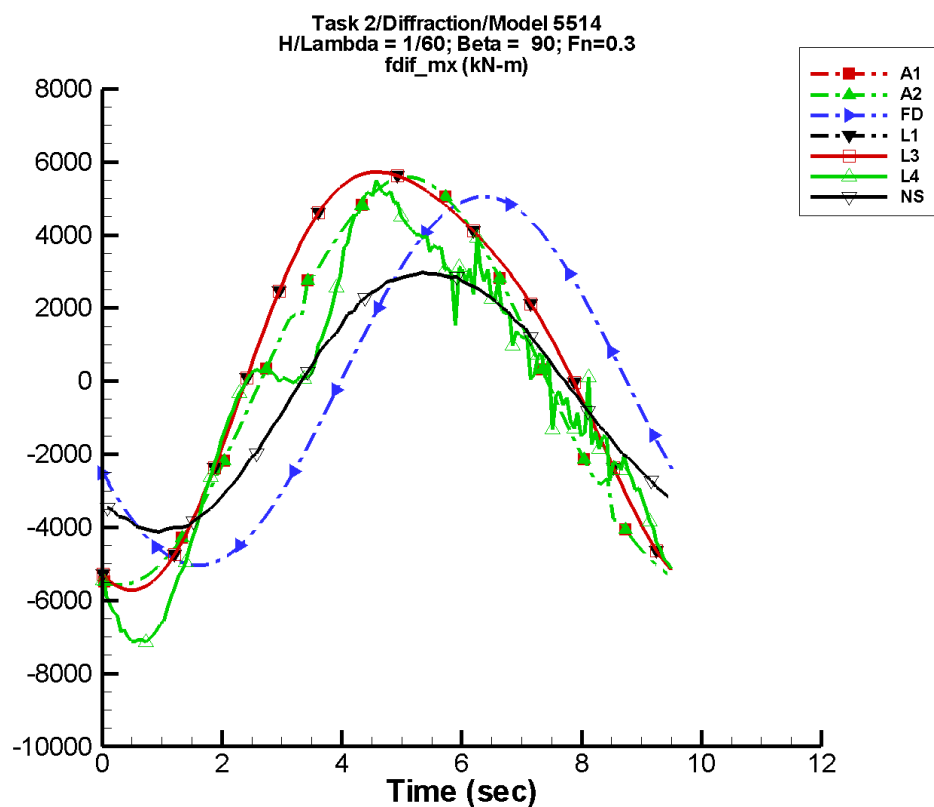
Table H-1815. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	22.9	1.78E+04	-88	52.7	-148
A2	1.24E+04	7.11E+03	-77	1.12E+04	75
FD	-6.91	1.65E+04	-20	25.1	-57
L1	2.36E+04	1.31E+04	-64	2.40E+03	138
L3	2.36E+04	1.31E+04	-64	2.40E+03	138
L4	-4.52E+04	3.59E+04	-179	2.44E+04	86
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1816. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.77E+04	1.77E+04	-1.76E+04	1.76E+04
A2	-1.60E+03	1.72E+04	-1.66E+03	1.71E+04
FD	-1.65E+04	1.65E+04	-1.64E+04	1.64E+04
L1	1.29E+04	3.91E+04	1.29E+04	3.91E+04
L3	1.29E+04	3.91E+04	1.29E+04	3.91E+04
L4	-5.19E+05	1.39E+05	-1.39E+05	1.89E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-909. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1817. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

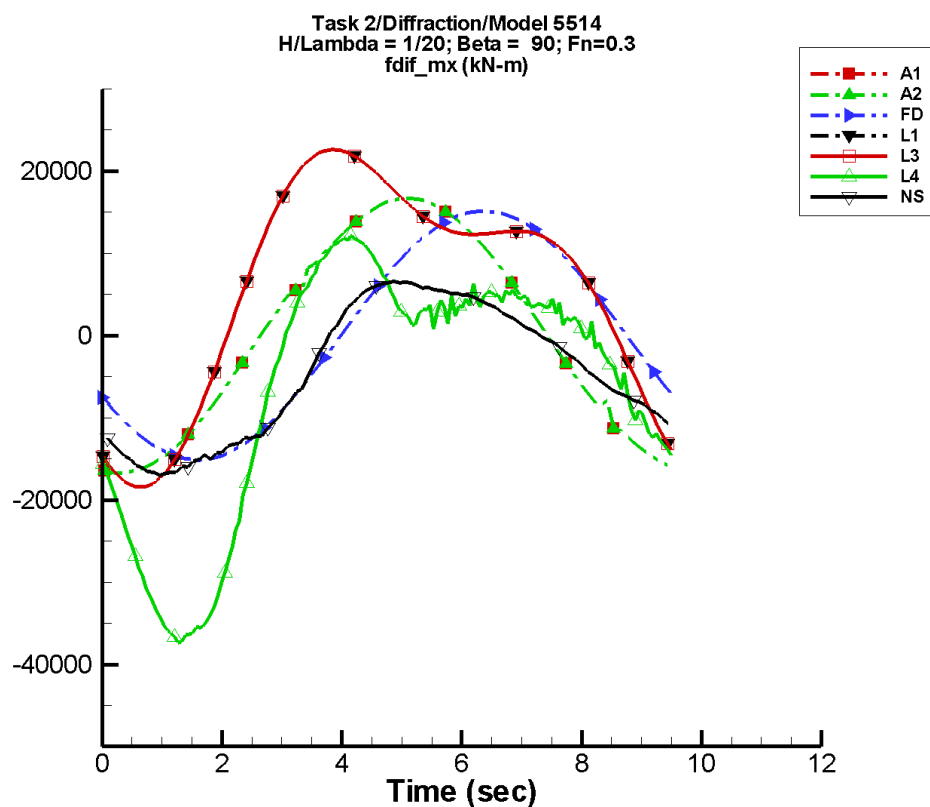
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.634	5.52E+03	-106	12.8	-134
A2	0.634	5.52E+03	-106	12.8	-134
FD	0.161	5.04E+03	-156	0.151	82
L1	626.	5.58E+03	-105	884.	-159
L3	626.	5.58E+03	-105	884.	-159
L4	-496.	5.00E+03	-108	581.	-155
NF	—	—	—	—	—
NS	-469.	3.52E+03	-120	212.	136

Table H-1818. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.58E+03	5.58E+03	-5.55E+03	5.51E+03
A2	-5.58E+03	5.58E+03	-5.55E+03	5.51E+03
FD	-5.04E+03	5.04E+03	-4.98E+03	4.99E+03
L1	-5.71E+03	5.72E+03	-5.68E+03	5.71E+03
L3	-5.71E+03	5.72E+03	-5.68E+03	5.71E+03
L4	-7.14E+03	5.56E+03	-7.08E+03	5.23E+03
NF	—	—	—	—
NS	-4.13E+03	2.98E+03	-4.06E+03	2.92E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-910. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

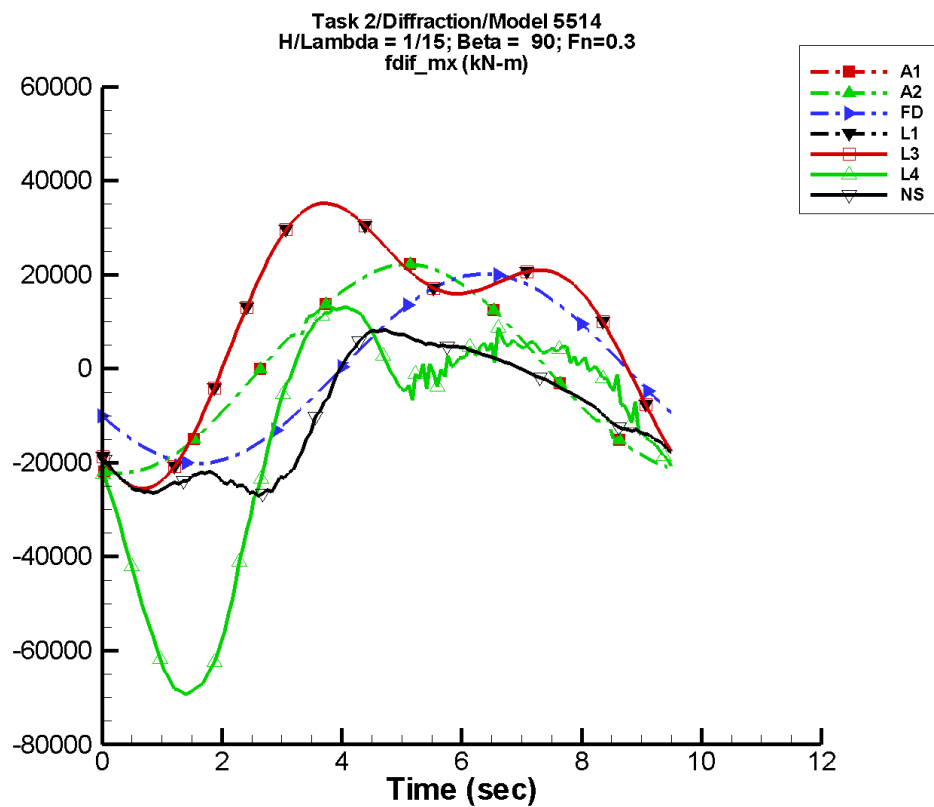
Table H-1819. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.90	1.65E+04	-106	38.3	-134
A2	1.90	1.65E+04	-106	38.3	-134
FD	0.482	1.51E+04	-156	0.453	82
L1	5.61E+03	1.68E+04	-105	7.96E+03	-159
L3	5.61E+03	1.68E+04	-105	7.96E+03	-159
L4	-6.23E+03	1.84E+04	-131	1.04E+04	167
NF	—	—	—	—	—
NS	-4.60E+03	1.10E+04	-127	1.64E+03	117

Table H-1820. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.67E+04	1.67E+04	-1.66E+04	1.65E+04
A2	-1.67E+04	1.67E+04	-1.66E+04	1.65E+04
FD	-1.51E+04	1.51E+04	-1.50E+04	1.50E+04
L1	-1.84E+04	2.26E+04	-1.83E+04	2.25E+04
L3	-1.84E+04	2.26E+04	-1.83E+04	2.25E+04
L4	-3.74E+04	1.21E+04	-3.65E+04	1.16E+04
NF	—	—	—	—
NS	-1.70E+04	6.61E+03	-1.65E+04	6.33E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-911. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

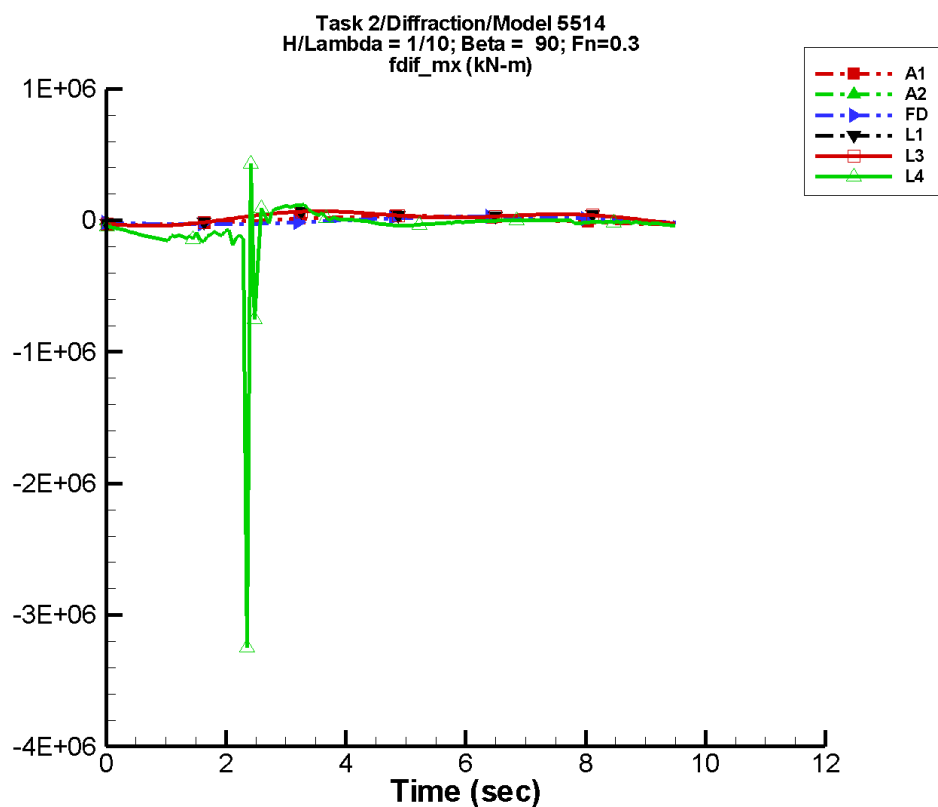
Table H-1821. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.52	2.20E+04	-106	51.0	-134
A2	2.52	2.20E+04	-106	51.0	-134
FD	0.641	2.02E+04	-156	0.604	83
L1	9.97E+03	2.23E+04	-105	1.41E+04	-159
L3	9.97E+03	2.23E+04	-105	1.41E+04	-159
L4	-1.36E+04	2.94E+04	-139	1.93E+04	166
NF	—	—	—	—	—
NS	-9.60E+03	1.60E+04	-133	3.05E+03	86

Table H-1822. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.22E+04	2.22E+04	-2.21E+04	2.20E+04
A2	-2.22E+04	2.22E+04	-2.21E+04	2.20E+04
FD	-2.02E+04	2.02E+04	-1.99E+04	1.99E+04
L1	-2.55E+04	3.52E+04	-2.53E+04	3.50E+04
L3	-2.55E+04	3.52E+04	-2.53E+04	3.50E+04
L4	-6.93E+04	1.31E+04	-6.85E+04	1.27E+04
NF	—	—	—	—
NS	-2.72E+04	8.27E+03	-2.60E+04	7.84E+03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-912. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

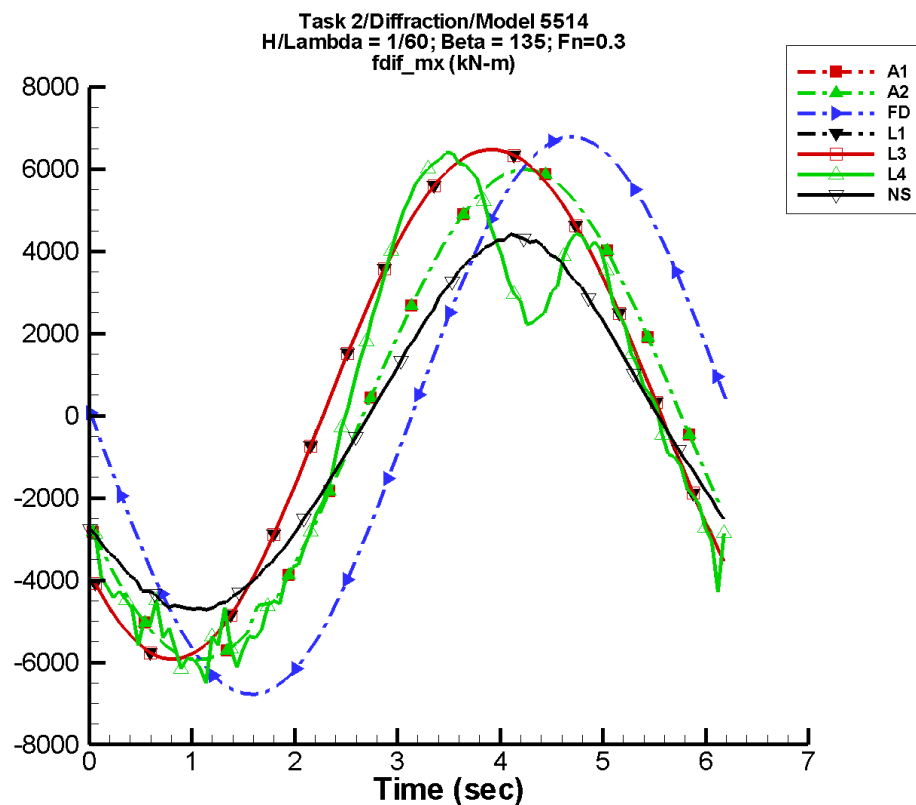
Table H-1823. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.79	3.30E+04	-106	76.6	-134
A2	1.37E+03	1.17E+04	150	1.94E+04	-171
FD	0.963	3.03E+04	-156	0.910	83
L1	2.24E+04	3.35E+04	-105	3.18E+04	-159
L3	2.24E+04	3.35E+04	-105	3.18E+04	-159
L4	-4.79E+04	7.67E+04	-155	6.63E+04	144
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1824. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.34E+04	3.34E+04	-3.32E+04	3.30E+04
A2	-8.87E+03	-6.75E+03	-8.87E+03	-6.75E+03
FD	-3.03E+04	3.02E+04	-2.99E+04	2.99E+04
L1	-4.13E+04	6.94E+04	-4.07E+04	6.88E+04
L3	-4.13E+04	6.94E+04	-4.07E+04	6.88E+04
L4	-3.27E+06	4.31E+05	-5.48E+05	1.31E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-913. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1825. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

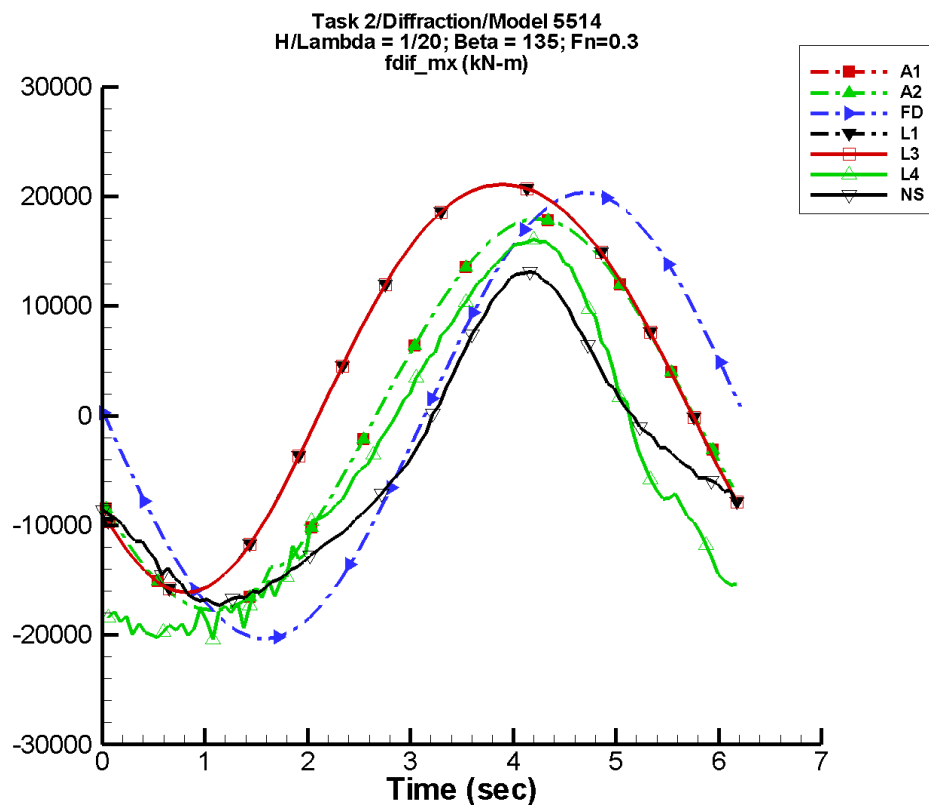
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	11.4	5.91E+03	-161	56.0	-98
A2	11.4	5.91E+03	-161	56.0	-98
FD	-3.76	6.78E+03	157	5.18	172
L1	426.	6.19E+03	-147	151.	150
L3	426.	6.19E+03	-147	151.	150
L4	-211.	5.65E+03	-150	909.	73
NF	—	—	—	—	—
NS	-408.	4.44E+03	-150	201.	-24

Table H-1826. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.97E+03	6.00E+03	-5.96E+03	5.83E+03
A2	-5.97E+03	6.00E+03	-5.96E+03	5.83E+03
FD	-6.78E+03	6.78E+03	-6.61E+03	6.64E+03
L1	-5.92E+03	6.47E+03	-5.91E+03	6.42E+03
L3	-5.92E+03	6.47E+03	-5.91E+03	6.42E+03
L4	-6.51E+03	6.40E+03	-5.83E+03	6.19E+03
NF	—	—	—	—
NS	-4.72E+03	4.42E+03	-4.67E+03	4.28E+03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-914. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

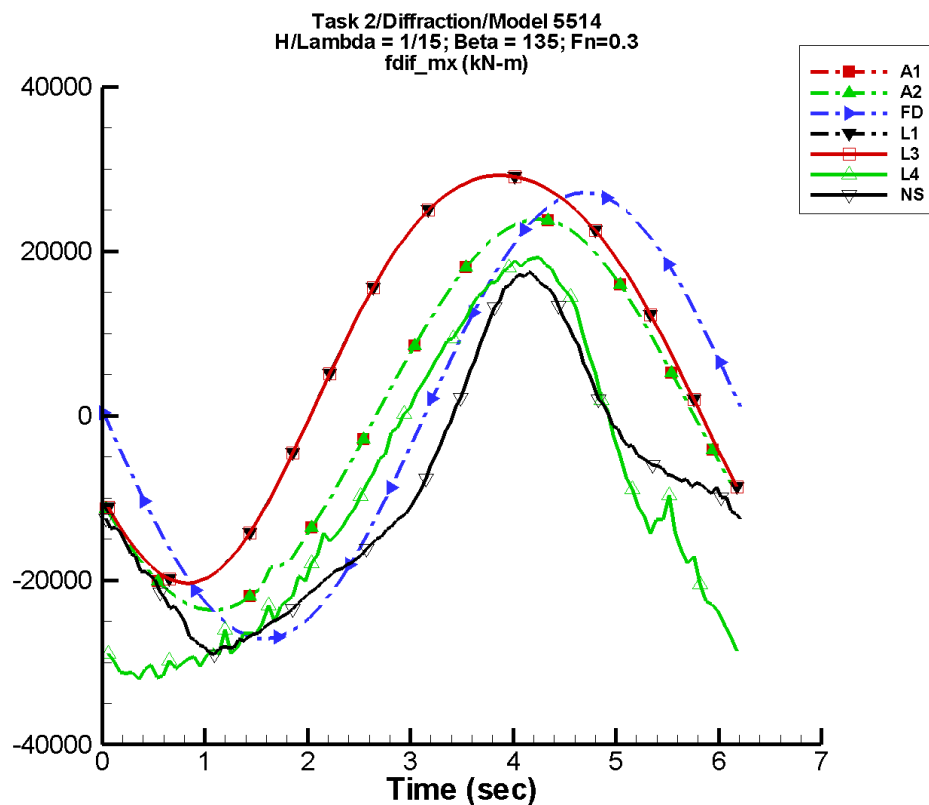
Table H-1827. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	34.1	1.77E+04	-161	168.	-98
A2	34.1	1.77E+04	-161	168.	-98
FD	-11.3	2.04E+04	157	15.5	172
L1	3.79E+03	1.86E+04	-147	1.31E+03	149
L3	3.79E+03	1.86E+04	-147	1.31E+03	149
L4	-4.54E+03	1.71E+04	-150	2.84E+03	-60
NF	—	—	—	—	—
NS	-4.51E+03	1.32E+04	-158	2.26E+03	-7

Table H-1828. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.79E+04	1.79E+04	-1.78E+04	1.75E+04
A2	-1.79E+04	1.79E+04	-1.78E+04	1.75E+04
FD	-2.04E+04	2.03E+04	-1.98E+04	1.99E+04
L1	-1.61E+04	2.11E+04	-1.61E+04	2.10E+04
L3	-1.61E+04	2.11E+04	-1.61E+04	2.10E+04
L4	-2.12E+04	1.61E+04	-1.97E+04	1.57E+04
NF	—	—	—	—
NS	-1.73E+04	1.31E+04	-1.69E+04	1.26E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-915. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

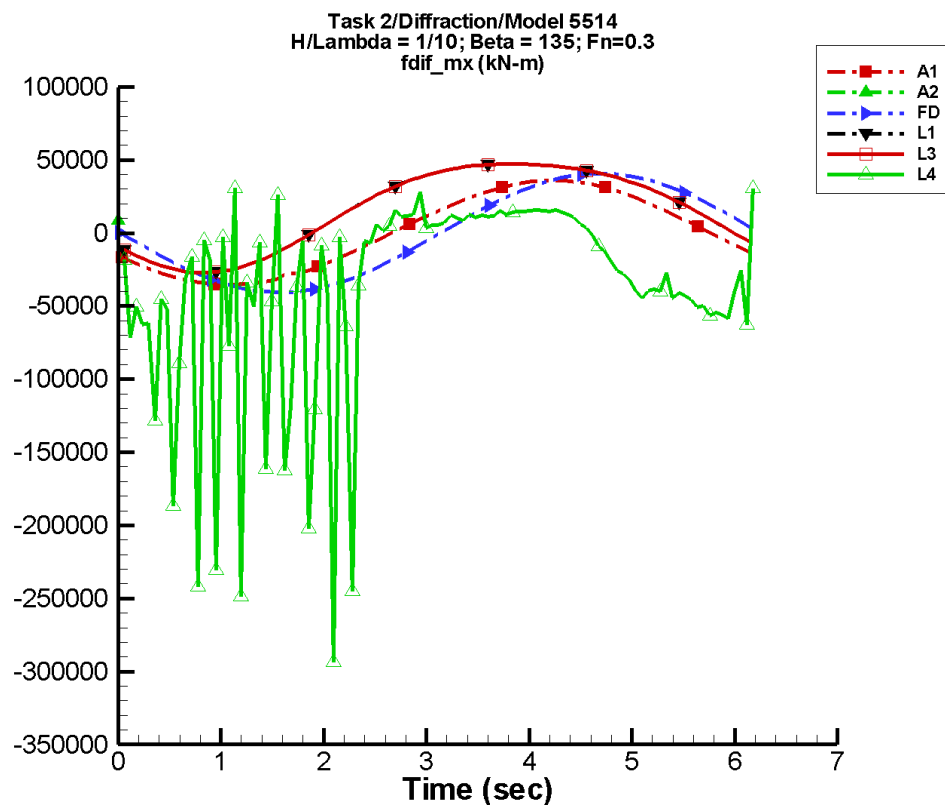
Table H-1829. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	45.4	2.35E+04	-161	223.	-98
A2	45.4	2.35E+04	-161	223.	-98
FD	-15.1	2.71E+04	157	20.7	172
L1	6.73E+03	2.48E+04	-147	2.32E+03	149
L3	6.73E+03	2.48E+04	-147	2.32E+03	148
L4	-9.98E+03	2.38E+04	-146	4.13E+03	-51
NF	—	—	—	—	—
NS	-9.54E+03	1.88E+04	-162	3.32E+03	1

Table H-1830. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.38E+04	2.39E+04	-2.37E+04	2.32E+04
A2	-2.38E+04	2.39E+04	-2.37E+04	2.32E+04
FD	-2.71E+04	2.71E+04	-2.64E+04	2.66E+04
L1	-2.04E+04	2.92E+04	-2.03E+04	2.91E+04
L3	-2.04E+04	2.92E+04	-2.03E+04	2.91E+04
L4	-3.21E+04	1.93E+04	-3.13E+04	1.86E+04
NF	—	—	—	—
NS	-2.91E+04	1.75E+04	-2.83E+04	1.67E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-916. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

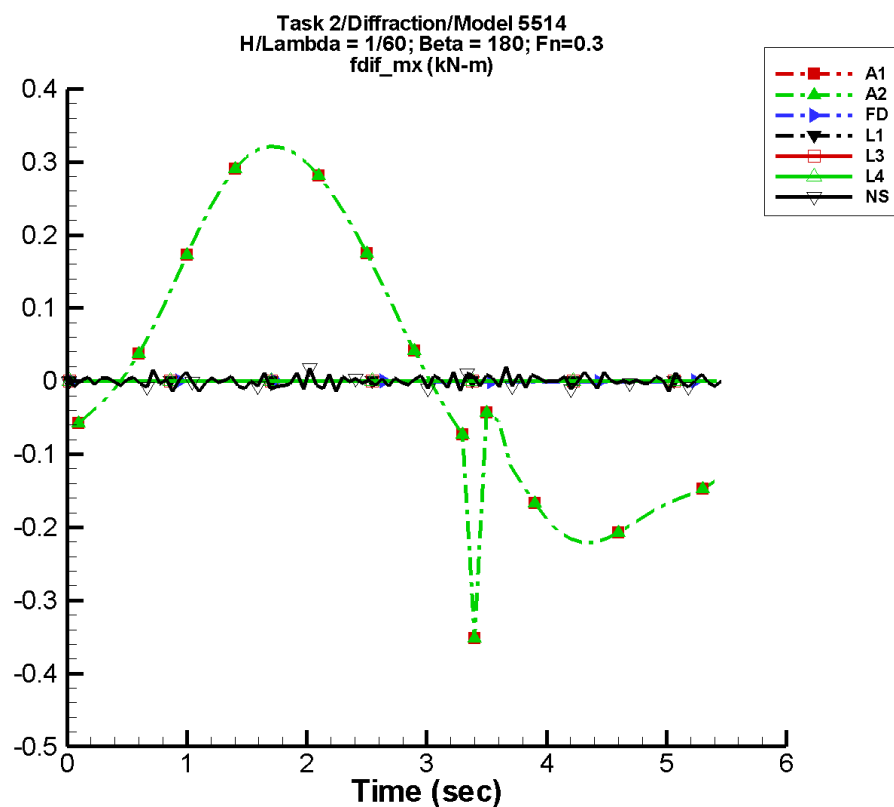
Table H-1831. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	68.2	3.53E+04	-161	335.	-98
A2	5.62E+03	1.31E+04	36	2.39E+04	-108
FD	-22.6	4.07E+04	157	31.1	172
L1	1.51E+04	3.72E+04	-147	5.20E+03	148
L3	1.51E+04	3.72E+04	-147	5.20E+03	148
L4	-3.69E+04	4.99E+04	-149	1.61E+04	39
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1832. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.57E+04	3.59E+04	-3.57E+04	3.49E+04
A2	8.40E+03	1.17E+04	8.40E+03	1.17E+04
FD	-4.07E+04	4.07E+04	-3.97E+04	3.99E+04
L1	-2.72E+04	4.72E+04	-2.72E+04	4.71E+04
L3	-2.72E+04	4.72E+04	-2.72E+04	4.71E+04
L4	-2.94E+05	3.07E+04	-1.04E+05	1.53E+04
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-917. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1833. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

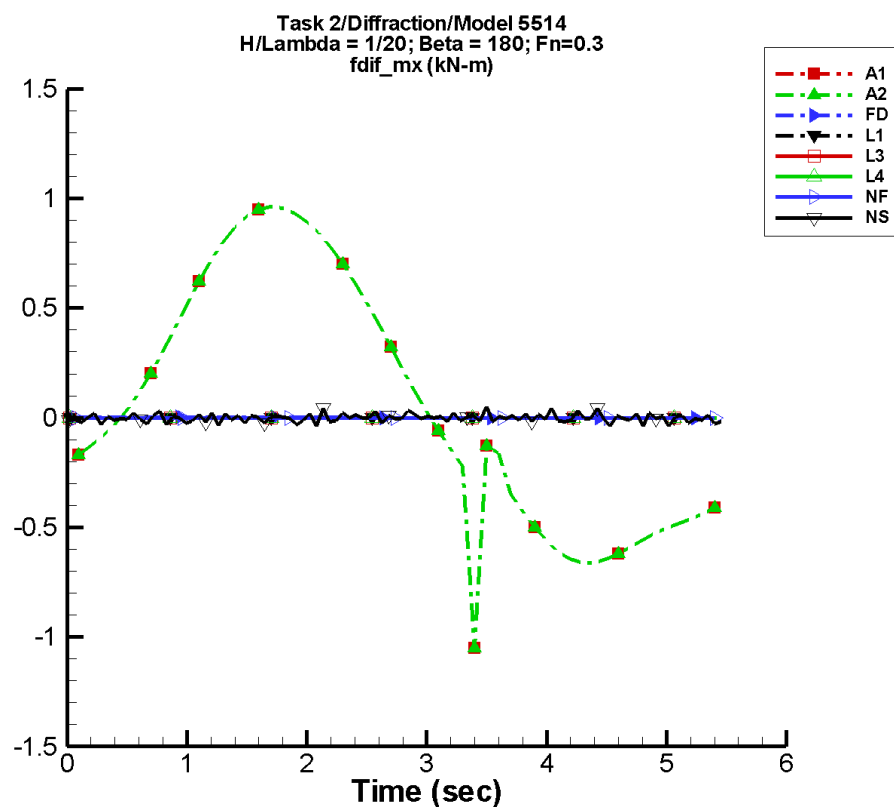
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.70E-02	0.260	-17	4.16E-02	-126
A2	1.70E-02	0.260	-17	4.16E-02	-126
FD	1.65E-07	6.94E-04	100	3.30E-06	13
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	7.52E-05	1.17E-03	-178	1.19E-03	-7

Table H-1834. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-0.352	0.322	-0.206	0.306
A2	-0.352	0.322	-0.206	0.306
FD	-6.95E-04	6.95E-04	-6.72E-04	6.73E-04
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-1.45E-02	2.00E-02	-2.82E-03	3.90E-03



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-918. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

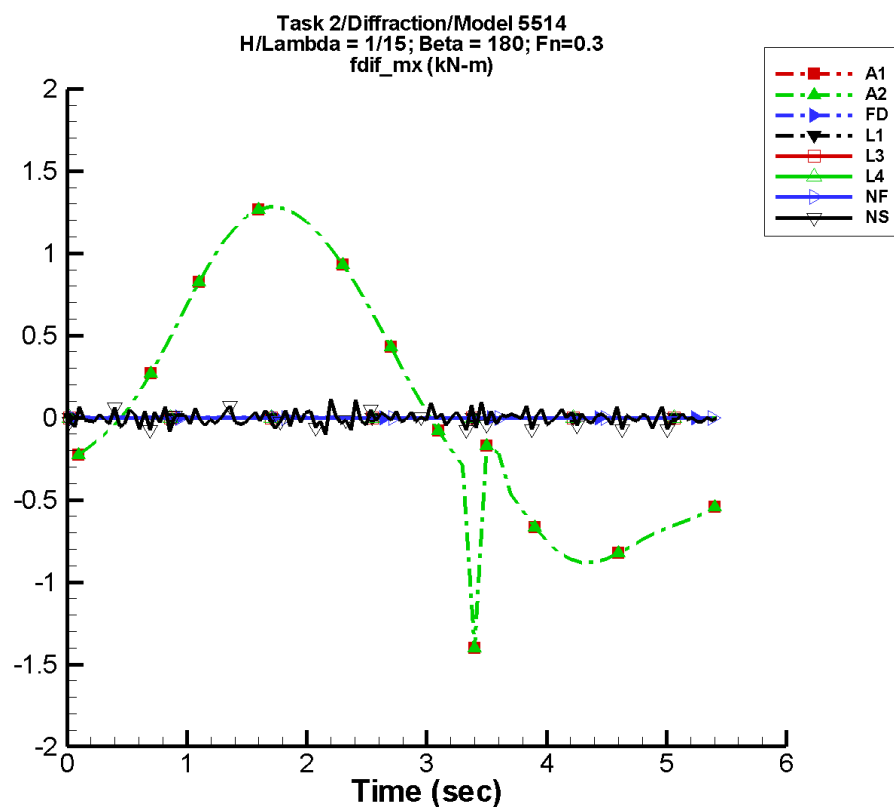
Table H-1835. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.10E-02	0.778	-17	0.124	-126
A2	5.10E-02	0.778	-17	0.124	-126
FD	4.95E-07	2.08E-03	100	9.90E-06	13
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.09E-03	4.66E-03	-118	2.11E-03	3

Table H-1836. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.05	0.962	-0.617	0.914
A2	-1.05	0.962	-0.617	0.914
FD	-2.09E-03	2.09E-03	-2.02E-03	2.02E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.02E-02	5.08E-02	-1.15E-02	5.46E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-919. Time history of  $M_x^{dif}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

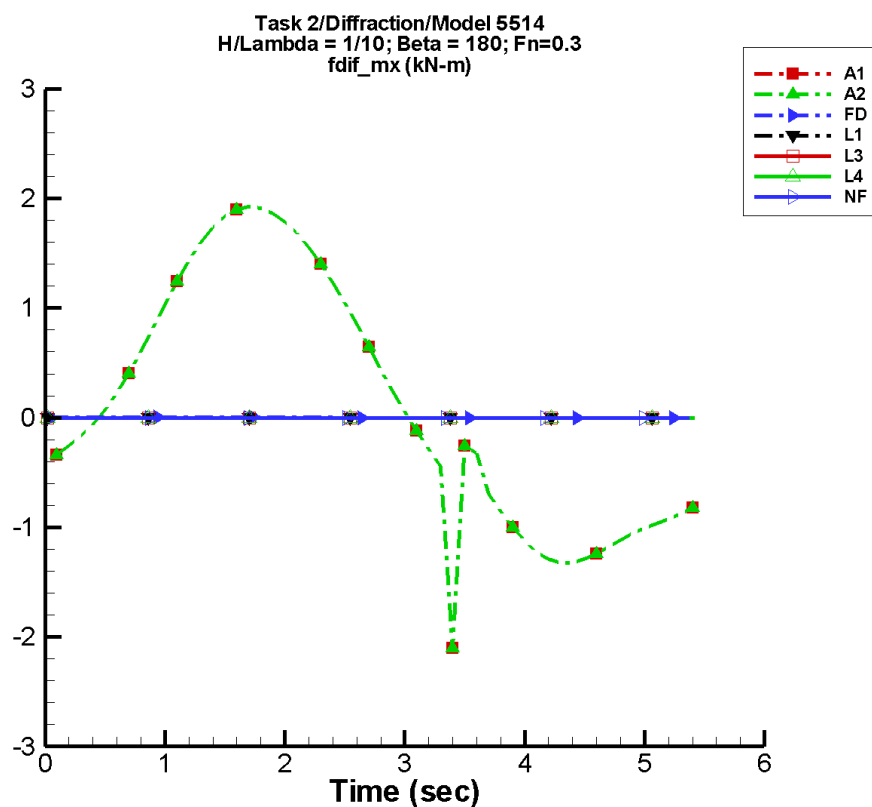
Table H-1837. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.79E-02	1.04	-17	0.166	-126
A2	6.79E-02	1.04	-17	0.166	-126
FD	6.61E-07	2.78E-03	100	1.32E-05	13
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-2.07E-03	6.39E-03	-117	3.15E-03	-12

Table H-1838. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.40	1.28	-0.822	1.22
A2	-1.40	1.28	-0.822	1.22
FD	-2.78E-03	2.78E-03	-2.69E-03	2.69E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.135	0.112	-1.79E-02	8.79E-03

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-920. Time history of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

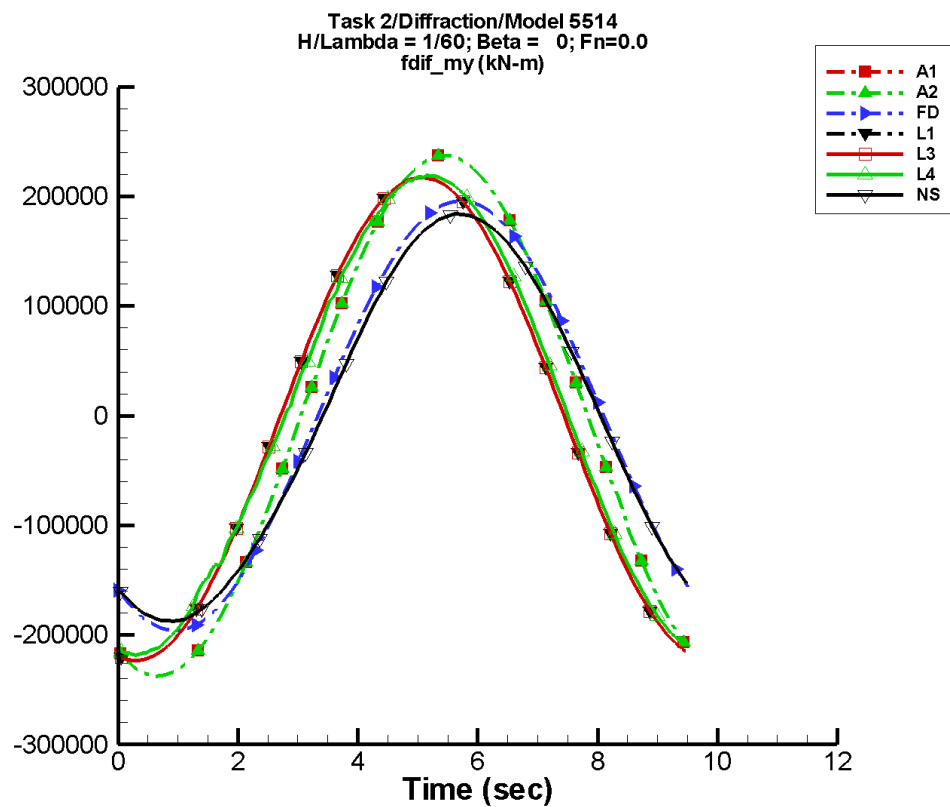
Table H-1839. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.102	1.56	-17	0.249	-126
A2	0.102	1.56	-17	0.249	-126
FD	9.91E-07	4.16E-03	100	1.98E-05	13
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1840. Minimum and maximum of  $M_x^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.10	1.92	-1.23	1.83
A2	-2.10	1.92	-1.23	1.83
FD	-4.17E-03	4.17E-03	-4.03E-03	4.04E-03
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-921. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1841. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

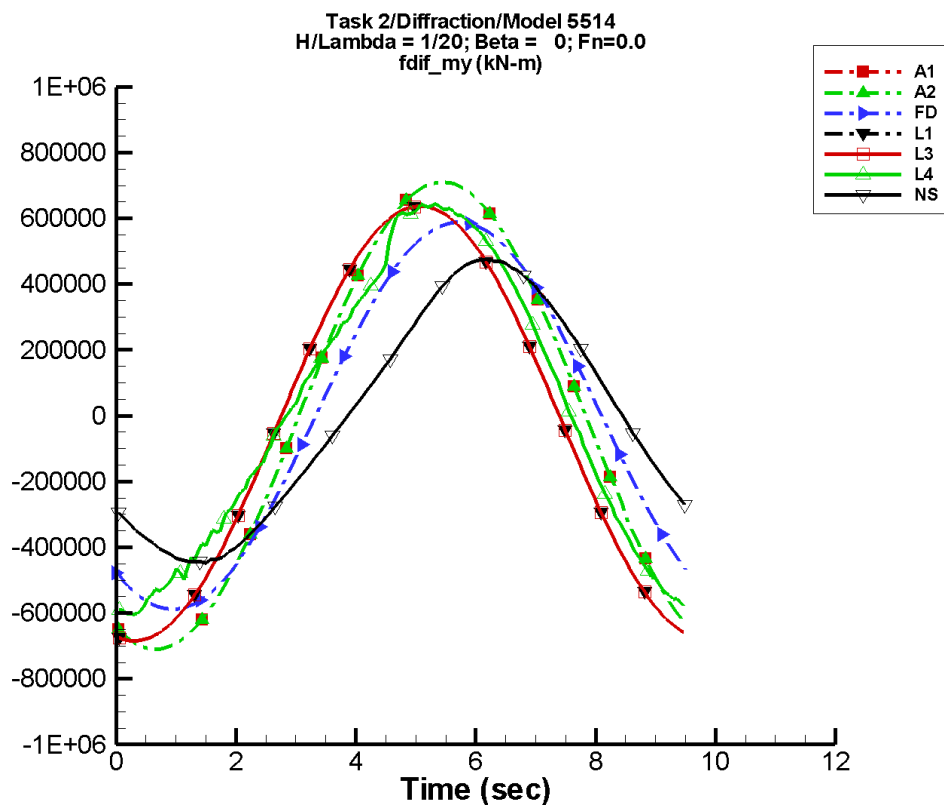
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	339.	2.37E+05	-120	649.	-159
A2	339.	2.37E+05	-120	649.	-159
FD	4.55	1.96E+05	-131	5.28	64
L1	-2.73E+03	2.20E+05	-105	427.	94
L3	-2.73E+03	2.20E+05	-105	427.	94
L4	-97.9	2.16E+05	-107	5.71E+03	-12
NF	—	—	—	—	—
NS	-4.39E+03	1.85E+05	-126	4.08E+03	-16

Table H-1842. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.38E+05	2.38E+05	-2.36E+05	2.35E+05
A2	-2.38E+05	2.38E+05	-2.36E+05	2.35E+05
FD	-1.96E+05	1.96E+05	-1.94E+05	1.94E+05
L1	-2.23E+05	2.17E+05	-2.23E+05	2.16E+05
L3	-2.23E+05	2.17E+05	-2.23E+05	2.16E+05
L4	-2.18E+05	2.19E+05	-2.17E+05	2.18E+05
NF	—	—	—	—
NS	-1.87E+05	1.84E+05	-1.86E+05	1.82E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-922. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

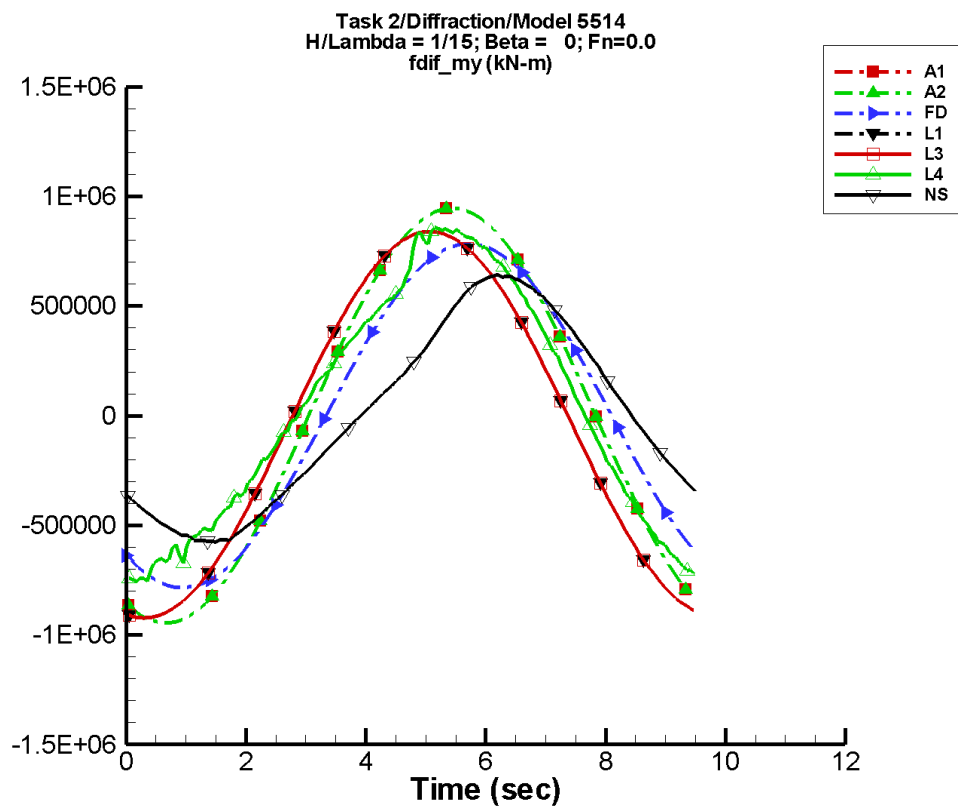
Table H-1843. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.01E+03	7.10E+05	-120	1.94E+03	-159
A2	1.01E+03	7.10E+05	-120	1.94E+03	-159
FD	13.6	5.88E+05	-131	15.9	64
L1	-2.52E+04	6.59E+05	-105	3.62E+03	74
L3	-2.52E+04	6.59E+05	-105	3.62E+03	74
L4	8.80E+03	5.90E+05	-111	5.76E+04	-24
NF	—	—	—	—	—
NS	-6.28E+03	4.44E+05	-143	2.30E+04	-52

Table H-1844. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.13E+05	7.11E+05	-7.05E+05	7.03E+05
A2	-7.13E+05	7.11E+05	-7.05E+05	7.03E+05
FD	-5.88E+05	5.88E+05	-5.82E+05	5.82E+05
L1	-6.84E+05	6.37E+05	-6.83E+05	6.34E+05
L3	-6.84E+05	6.37E+05	-6.83E+05	6.34E+05
L4	-6.04E+05	6.44E+05	-5.99E+05	6.35E+05
NF	—	—	—	—
NS	-4.47E+05	4.76E+05	-4.41E+05	4.68E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-923. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

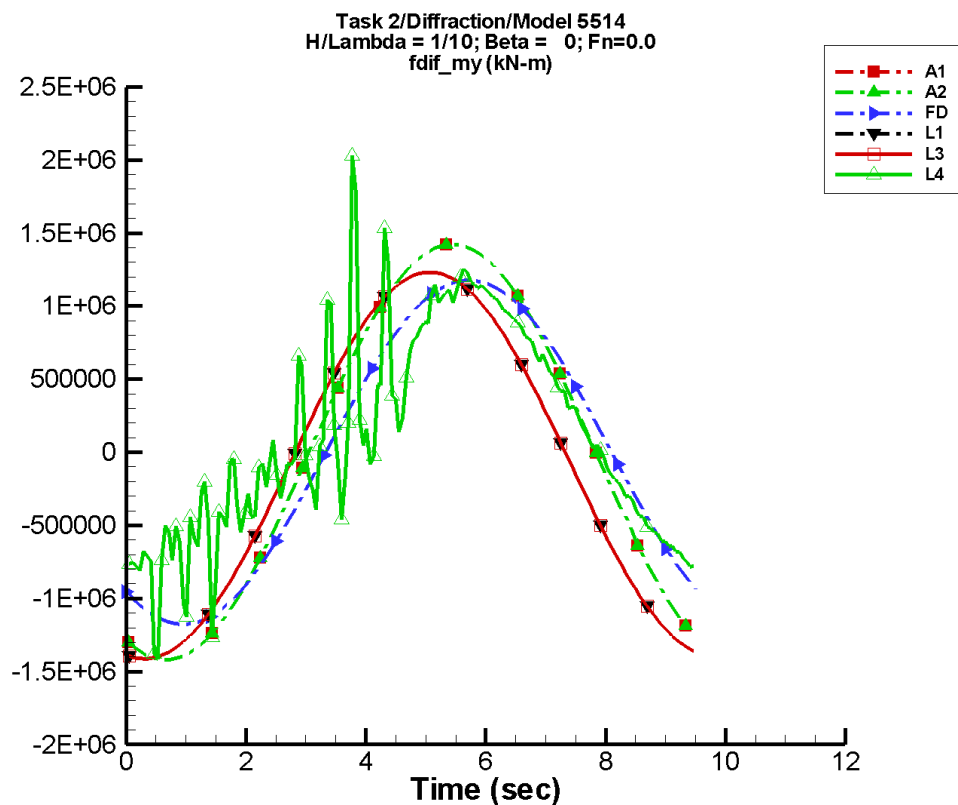
Table H-1845. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.35E+03	9.45E+05	-120	2.58E+03	-159
A2	1.35E+03	9.45E+05	-120	2.58E+03	-159
FD	18.2	7.84E+05	-131	21.1	64
L1	-4.50E+04	8.78E+05	-105	6.45E+03	72
L3	-4.50E+04	8.78E+05	-105	6.45E+03	72
L4	3.02E+04	7.43E+05	-112	8.31E+04	-28
NF	—	—	—	—	—
NS	-8.13E+03	5.70E+05	-144	4.51E+04	-60

Table H-1846. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-9.49E+05	9.46E+05	-9.39E+05	9.36E+05
A2	-9.49E+05	9.46E+05	-9.39E+05	9.36E+05
FD	-7.84E+05	7.84E+05	-7.76E+05	7.76E+05
L1	-9.22E+05	8.40E+05	-9.20E+05	8.36E+05
L3	-9.22E+05	8.40E+05	-9.20E+05	8.36E+05
L4	-7.54E+05	8.59E+05	-7.50E+05	8.44E+05
NF	—	—	—	—
NS	-5.75E+05	6.41E+05	-5.70E+05	6.32E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-924. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

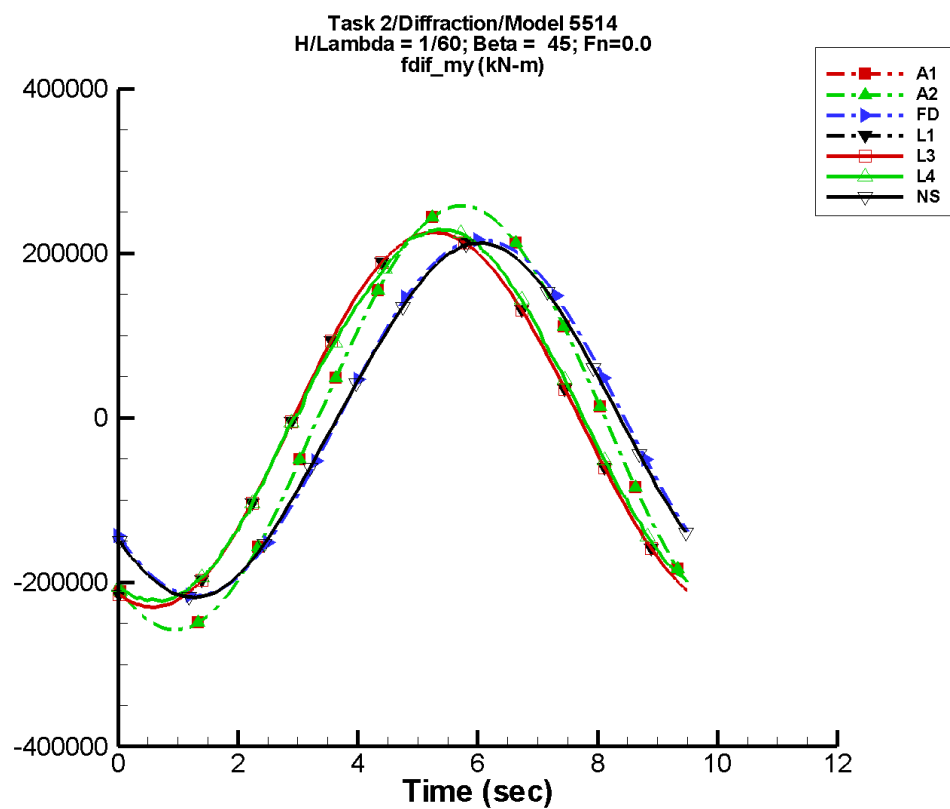
Table H-1847. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.03E+03	1.42E+06	-120	3.88E+03	-159
A2	2.03E+03	1.42E+06	-120	3.88E+03	-159
FD	27.2	1.18E+06	-131	31.7	64
L1	-1.02E+05	1.32E+06	-105	1.46E+04	69
L3	-1.02E+05	1.32E+06	-105	1.46E+04	69
L4	1.03E+05	8.90E+05	-118	1.46E+05	-48
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1848. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.43E+06	1.42E+06	-1.41E+06	1.41E+06
A2	-1.43E+06	1.42E+06	-1.41E+06	1.41E+06
FD	-1.18E+06	1.18E+06	-1.16E+06	1.16E+06
L1	-1.41E+06	1.23E+06	-1.41E+06	1.22E+06
L3	-1.41E+06	1.23E+06	-1.41E+06	1.22E+06
L4	-1.41E+06	2.03E+06	-8.66E+05	1.17E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-925. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1849. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

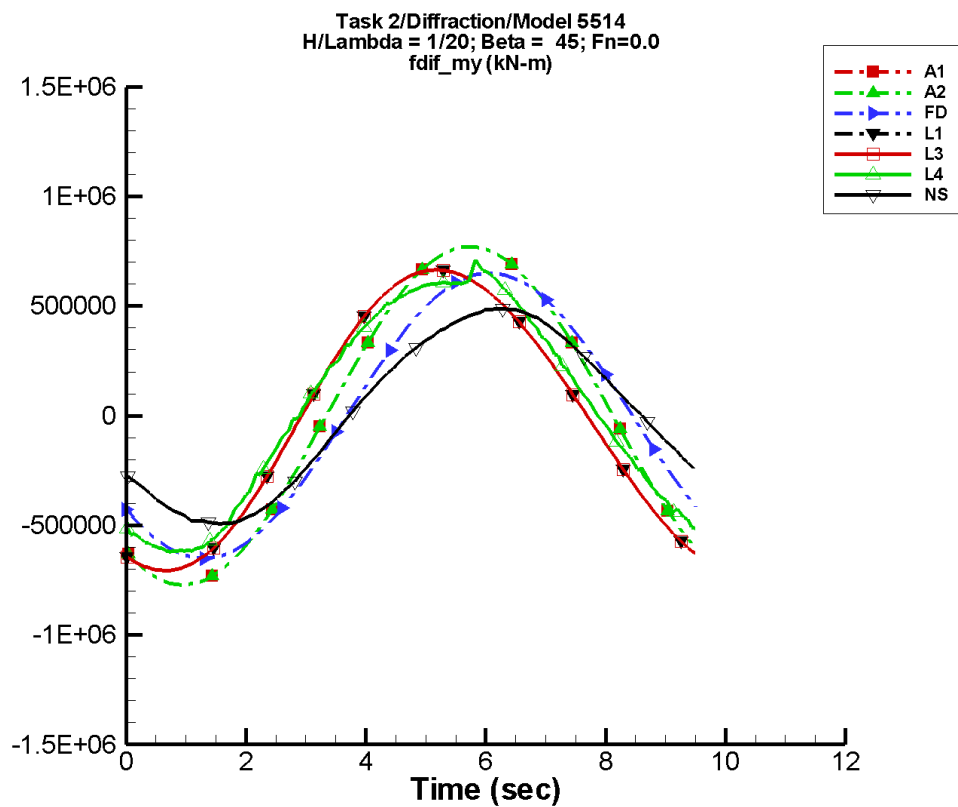
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	280.	2.57E+05	-131	655.	-159
A2	280.	2.57E+05	-131	655.	-159
FD	6.13	2.17E+05	-145	6.34	74
L1	-1.20E+03	2.27E+05	-114	3.46E+03	150
L3	-1.20E+03	2.27E+05	-114	3.46E+03	150
L4	2.30E+03	2.25E+05	-116	334.	-79
NF	—	—	—	—	—
NS	-3.73E+03	2.13E+05	-138	929.	-75

Table H-1850. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.58E+05	2.58E+05	-2.55E+05	2.55E+05
A2	-2.58E+05	2.58E+05	-2.55E+05	2.55E+05
FD	-2.17E+05	2.17E+05	-2.14E+05	2.14E+05
L1	-2.30E+05	2.25E+05	-2.30E+05	2.24E+05
L3	-2.30E+05	2.25E+05	-2.30E+05	2.24E+05
L4	-2.23E+05	2.29E+05	-2.22E+05	2.28E+05
NF	—	—	—	—
NS	-2.19E+05	2.12E+05	-2.16E+05	2.10E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-926. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

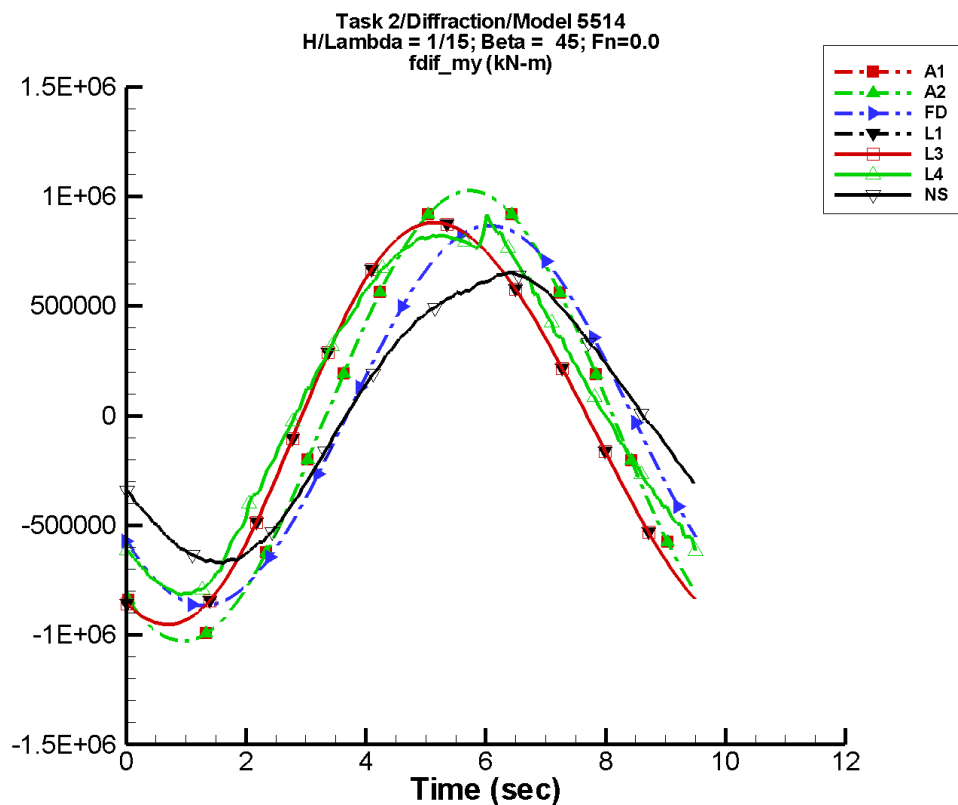
Table H-1851. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	836.	7.69E+05	-131	1.96E+03	-159
A2	836.	7.69E+05	-131	1.96E+03	-159
FD	18.4	6.50E+05	-145	19.1	73
L1	-1.07E+04	6.82E+05	-114	3.02E+04	149
L3	-1.07E+04	6.82E+05	-114	3.02E+04	149
L4	3.22E+04	6.27E+05	-118	2.38E+04	-171
NF	—	—	—	—	—
NS	4.80E+03	4.83E+05	-144	1.52E+04	114

Table H-1852. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.72E+05	7.71E+05	-7.64E+05	7.63E+05
A2	-7.72E+05	7.71E+05	-7.64E+05	7.63E+05
FD	-6.50E+05	6.50E+05	-6.43E+05	6.43E+05
L1	-7.06E+05	6.65E+05	-7.04E+05	6.62E+05
L3	-7.06E+05	6.65E+05	-7.04E+05	6.62E+05
L4	-6.21E+05	7.10E+05	-6.16E+05	6.56E+05
NF	—	—	—	—
NS	-4.93E+05	4.89E+05	-4.87E+05	4.83E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-927. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

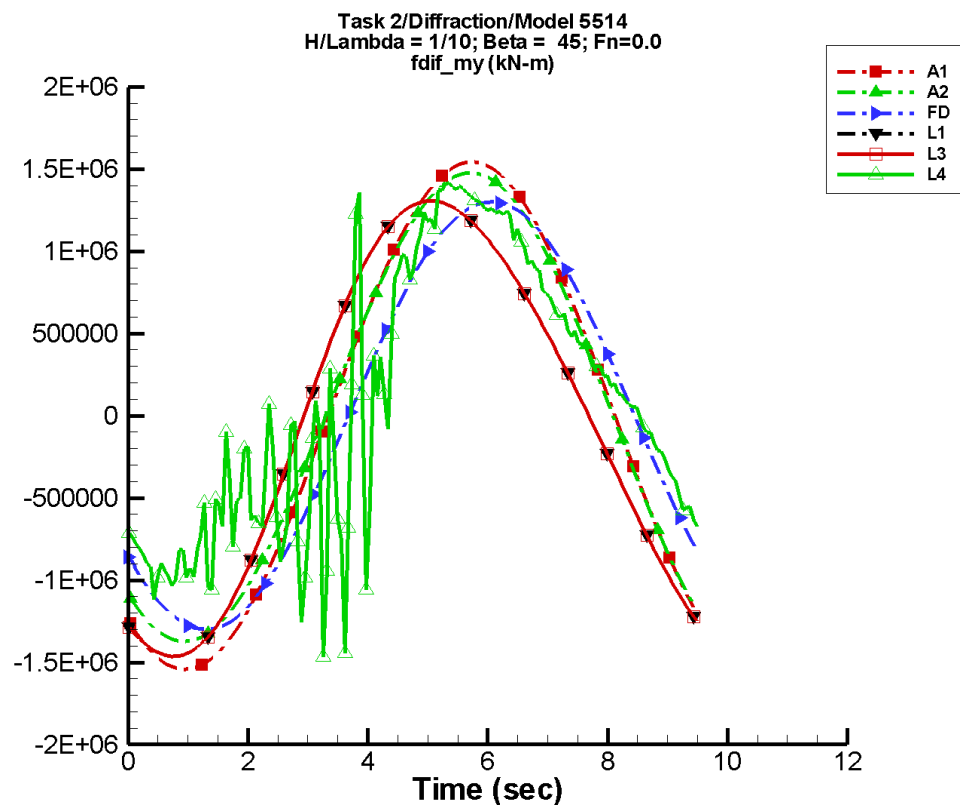
Table H-1853. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.11E+03	1.02E+06	-131	2.61E+03	-159
A2	1.11E+03	1.02E+06	-131	2.61E+03	-159
FD	24.5	8.67E+05	-145	25.4	74
L1	-1.89E+04	9.10E+05	-114	5.36E+04	149
L3	-1.89E+04	9.10E+05	-114	5.36E+04	149
L4	7.16E+04	8.12E+05	-120	5.61E+04	171
NF	—	—	—	—	—
NS	1.19E+04	6.43E+05	-144	3.37E+04	134

Table H-1854. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.03E+06	1.03E+06	-1.02E+06	1.02E+06
A2	-1.03E+06	1.03E+06	-1.02E+06	1.02E+06
FD	-8.67E+05	8.66E+05	-8.58E+05	8.57E+05
L1	-9.52E+05	8.80E+05	-9.49E+05	8.77E+05
L3	-9.52E+05	8.80E+05	-9.49E+05	8.77E+05
L4	-8.16E+05	9.17E+05	-8.08E+05	8.37E+05
NF	—	—	—	—
NS	-6.71E+05	6.52E+05	-6.64E+05	6.42E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-928. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

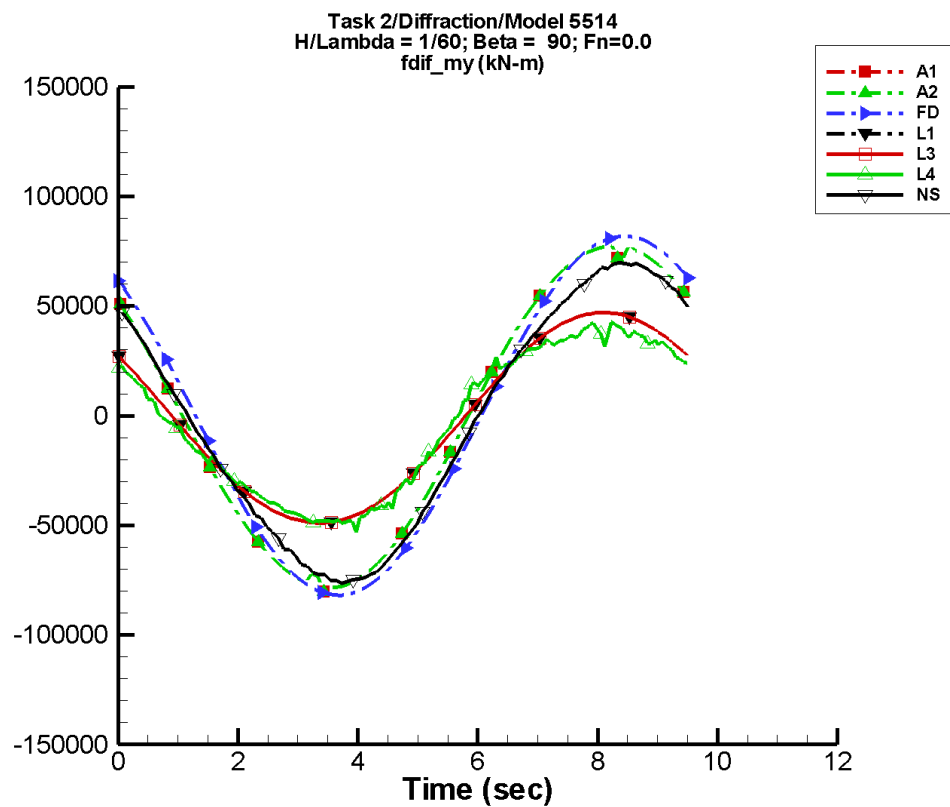
Table H-1855. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.67E+03	1.54E+06	-131	3.92E+03	-159
A2	1.30E+04	1.46E+06	-125	1.42E+04	3
FD	36.8	1.30E+06	-145	38.2	73
L1	-4.24E+04	1.36E+06	-114	1.20E+05	149
L3	-4.24E+04	1.36E+06	-114	1.20E+05	149
L4	7.55E+04	1.05E+06	-138	1.92E+05	-12
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1856. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.54E+06	1.54E+06	-1.53E+06	1.53E+06
A2	-1.50E+06	1.51E+06	-1.48E+06	1.52E+06
FD	-1.30E+06	1.30E+06	-1.29E+06	1.29E+06
L1	-1.46E+06	1.31E+06	-1.46E+06	1.30E+06
L3	-1.46E+06	1.31E+06	-1.46E+06	1.30E+06
L4	-1.46E+06	1.41E+06	-9.84E+05	1.39E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-929. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1857. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

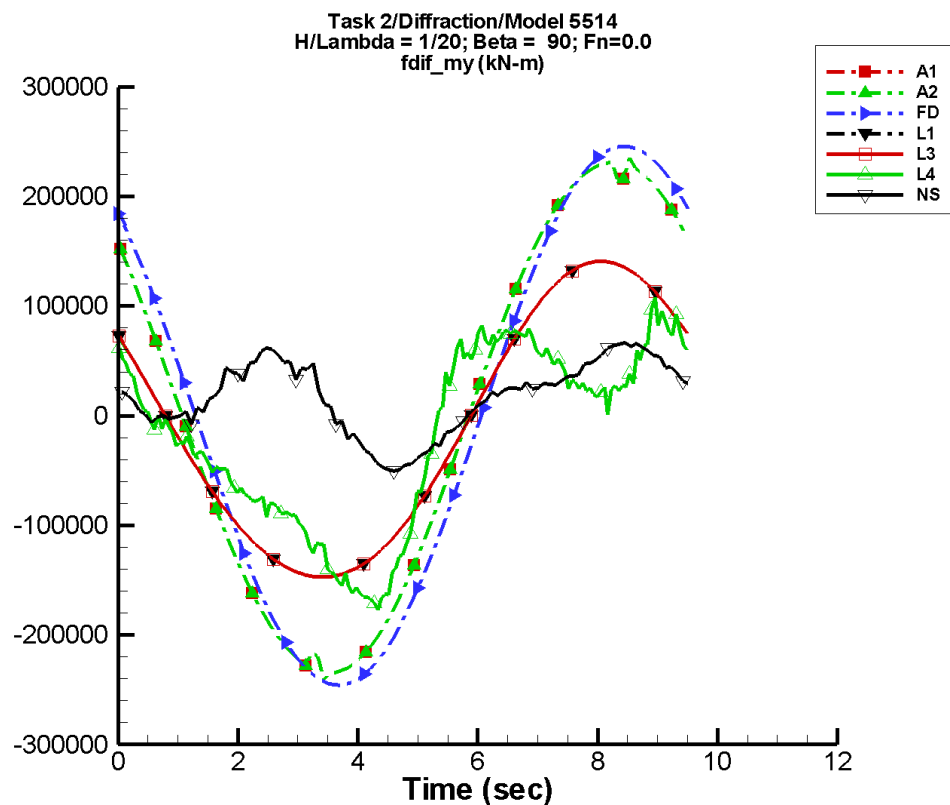
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-262.	7.82E+04	134	222.	14
A2	-262.	7.82E+04	134	222.	14
FD	1.61	8.19E+04	126	1.80	140
L1	-949.	4.75E+04	141	701.	-147
L3	-949.	4.75E+04	141	701.	-147
L4	-2.60E+03	4.40E+04	143	3.24E+03	-41
NF	—	—	—	—	—
NS	-2.88E+03	7.10E+04	133	1.26E+03	-83

Table H-1858. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.05E+04	7.85E+04	-7.69E+04	7.55E+04
A2	-8.05E+04	7.85E+04	-7.69E+04	7.55E+04
FD	-8.19E+04	8.19E+04	-8.10E+04	8.10E+04
L1	-4.89E+04	4.71E+04	-4.87E+04	4.69E+04
L3	-4.89E+04	4.71E+04	-4.87E+04	4.69E+04
L4	-5.31E+04	4.30E+04	-4.86E+04	3.90E+04
NF	—	—	—	—
NS	-7.65E+04	6.98E+04	-7.48E+04	6.86E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-930. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

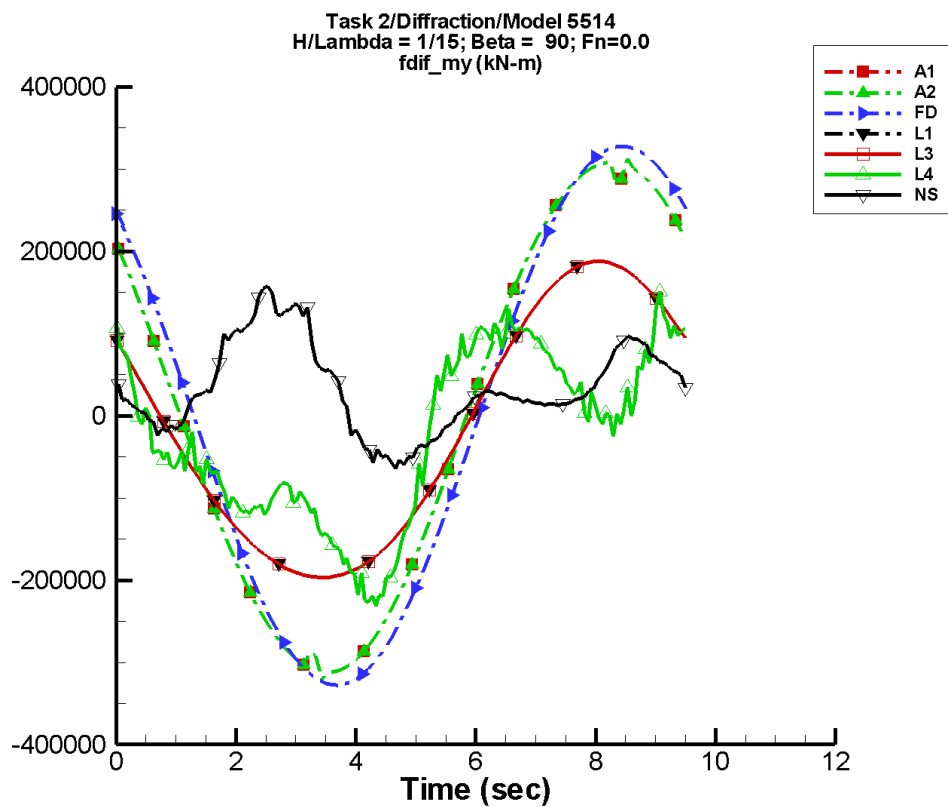
Table H-1859. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-785.	2.34E+05	134	663.	14
A2	-785.	2.34E+05	134	663.	14
FD	4.83	2.46E+05	126	5.40	140
L1	-7.74E+03	1.43E+05	141	7.20E+03	-144
L3	-7.74E+03	1.43E+05	141	7.20E+03	-144
L4	-1.93E+04	9.44E+04	144	3.79E+04	-26
NF	—	—	—	—	—
NS	1.64E+04	2.59E+04	103	3.19E+04	-123

Table H-1860. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.41E+05	2.35E+05	-2.30E+05	2.26E+05
A2	-2.41E+05	2.35E+05	-2.30E+05	2.26E+05
FD	-2.46E+05	2.46E+05	-2.43E+05	2.43E+05
L1	-1.47E+05	1.41E+05	-1.47E+05	1.40E+05
L3	-1.47E+05	1.41E+05	-1.47E+05	1.40E+05
L4	-1.77E+05	1.08E+05	-1.67E+05	8.65E+04
NF	—	—	—	—
NS	-5.02E+04	6.63E+04	-4.53E+04	6.31E+04

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-931. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

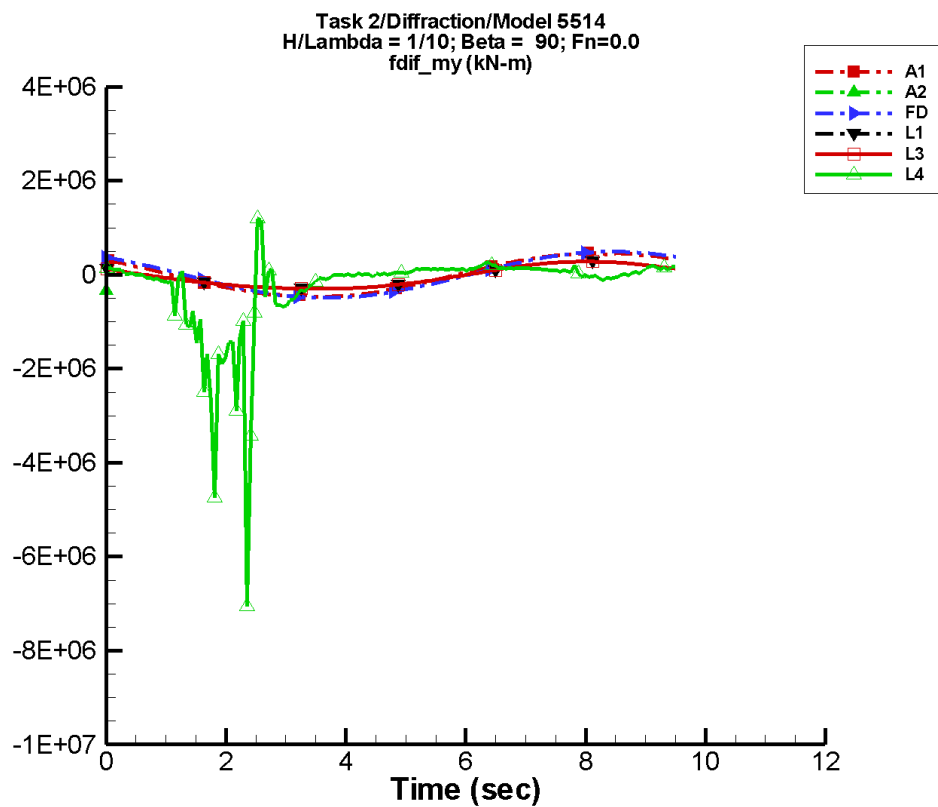
Table H-1861. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.05E+03	3.12E+05	134	883.	14
A2	-1.05E+03	3.12E+05	134	883.	14
FD	6.45	3.28E+05	126	7.17	140
L1	-1.36E+04	1.90E+05	141	1.30E+04	-144
L3	-1.36E+04	1.90E+05	141	1.30E+04	-144
L4	-2.53E+04	1.14E+05	149	4.47E+04	-30
NF	—	—	—	—	—
NS	3.15E+04	3.06E+04	44	5.31E+04	-124

Table H-1862. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.20E+05	3.13E+05	-3.06E+05	3.01E+05
A2	-3.20E+05	3.13E+05	-3.06E+05	3.01E+05
FD	-3.28E+05	3.28E+05	-3.24E+05	3.24E+05
L1	-1.97E+05	1.88E+05	-1.96E+05	1.87E+05
L3	-1.97E+05	1.88E+05	-1.96E+05	1.87E+05
L4	-2.31E+05	1.51E+05	-2.18E+05	1.14E+05
NF	—	—	—	—
NS	-6.43E+04	1.58E+05	-5.41E+04	1.38E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-932. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

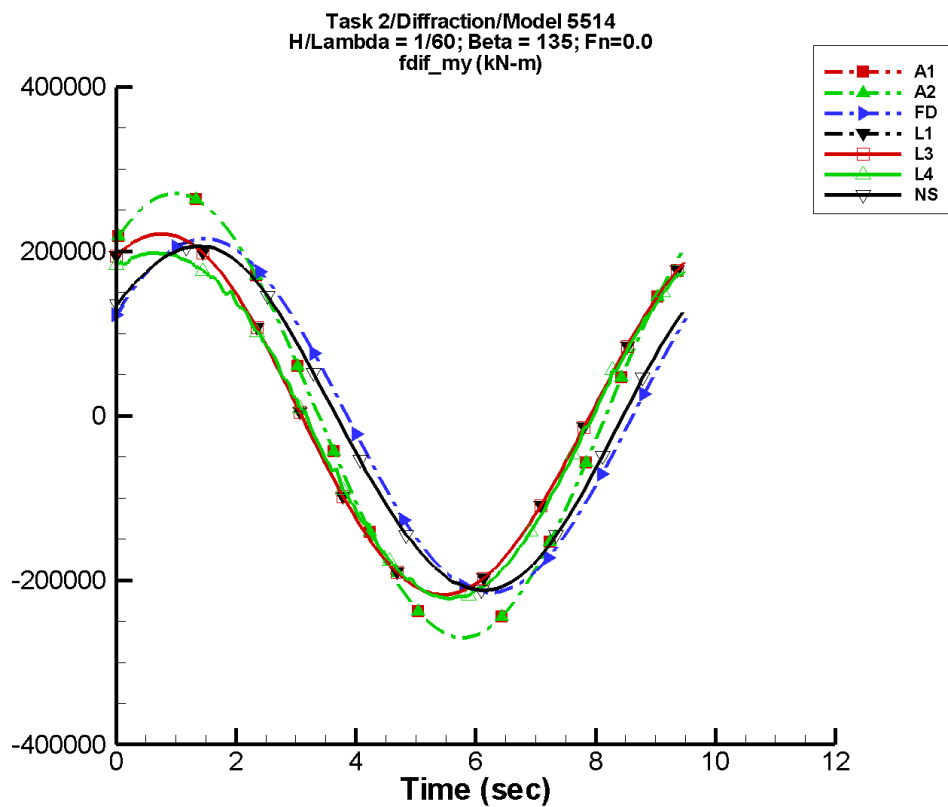
Table H-1863. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.57E+03	4.68E+05	134	1.33E+03	14
A2	2.91E+05	1.39E+06	116	4.95E+05	176
FD	9.68	4.92E+05	126	10.8	140
L1	-3.02E+04	2.85E+05	141	2.97E+04	-144
L3	-3.02E+04	2.85E+05	141	2.97E+04	-144
L4	-2.31E+05	6.62E+05	-175	5.05E+05	111
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1864. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.81E+05	4.70E+05	-4.60E+05	4.52E+05
A2	-3.40E+05	-3.19E+05	-3.40E+05	-3.19E+05
FD	-4.92E+05	4.91E+05	-4.86E+05	4.86E+05
L1	-2.97E+05	2.81E+05	-2.96E+05	2.80E+05
L3	-2.97E+05	2.81E+05	-2.96E+05	2.80E+05
L4	-7.07E+06	1.70E+06	-2.42E+06	1.90E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-933. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1865. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

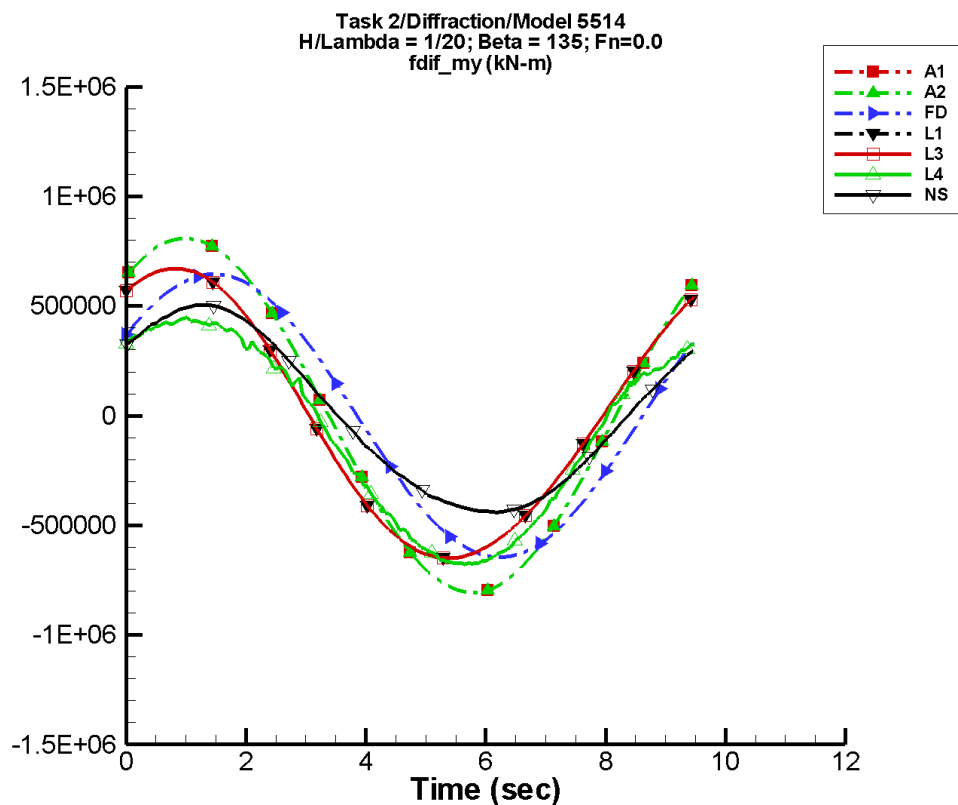
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-559.	2.69E+05	47	851.	10
A2	-559.	2.69E+05	47	851.	10
FD	-6.54	2.15E+05	29	6.50	-102
L1	-1.16E+03	2.18E+05	59	3.54E+03	-25
L3	-1.16E+03	2.18E+05	59	3.54E+03	-25
L4	-7.18E+03	2.11E+05	57	6.49E+03	176
NF	—	—	—	—	—
NS	-2.44E+03	2.10E+05	40	1.11E+03	-174

Table H-1866. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.70E+05	2.70E+05	-2.67E+05	2.67E+05
A2	-2.70E+05	2.70E+05	-2.67E+05	2.67E+05
FD	-2.15E+05	2.15E+05	-2.13E+05	2.13E+05
L1	-2.18E+05	2.21E+05	-2.17E+05	2.20E+05
L3	-2.18E+05	2.21E+05	-2.17E+05	2.20E+05
L4	-2.23E+05	1.98E+05	-2.21E+05	1.97E+05
NF	—	—	—	—
NS	-2.12E+05	2.07E+05	-2.10E+05	2.04E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-934. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

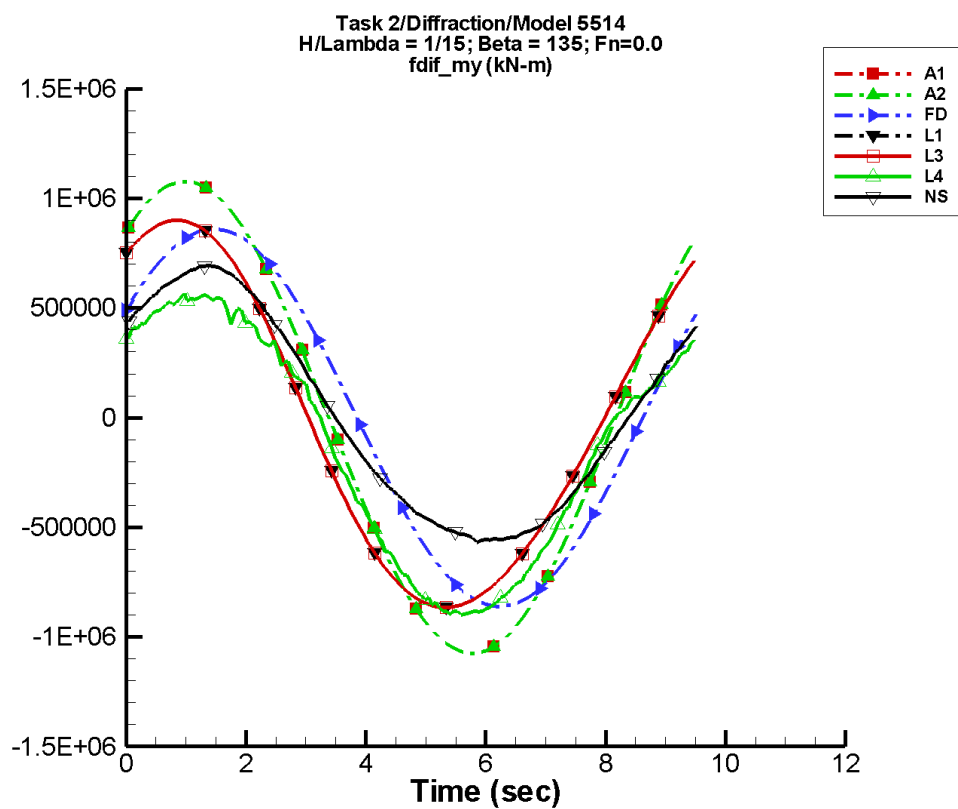
Table H-1867. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.67E+03	8.05E+05	47	2.54E+03	10
A2	-1.67E+03	8.05E+05	47	2.54E+03	10
FD	-19.6	6.46E+05	29	19.5	-102
L1	-9.45E+03	6.56E+05	59	3.11E+04	-27
L3	-9.45E+03	6.56E+05	59	3.11E+04	-27
L4	-7.77E+04	5.56E+05	53	5.36E+04	-150
NF	—	—	—	—	—
NS	7.60E+03	4.66E+05	44	2.25E+04	-8

Table H-1868. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.08E+05	8.08E+05	-7.99E+05	8.00E+05
A2	-8.08E+05	8.08E+05	-7.99E+05	8.00E+05
FD	-6.45E+05	6.46E+05	-6.38E+05	6.38E+05
L1	-6.50E+05	6.71E+05	-6.47E+05	6.68E+05
L3	-6.50E+05	6.71E+05	-6.47E+05	6.68E+05
L4	-6.78E+05	4.49E+05	-6.73E+05	4.33E+05
NF	—	—	—	—
NS	-4.43E+05	5.06E+05	-4.35E+05	4.98E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-935. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

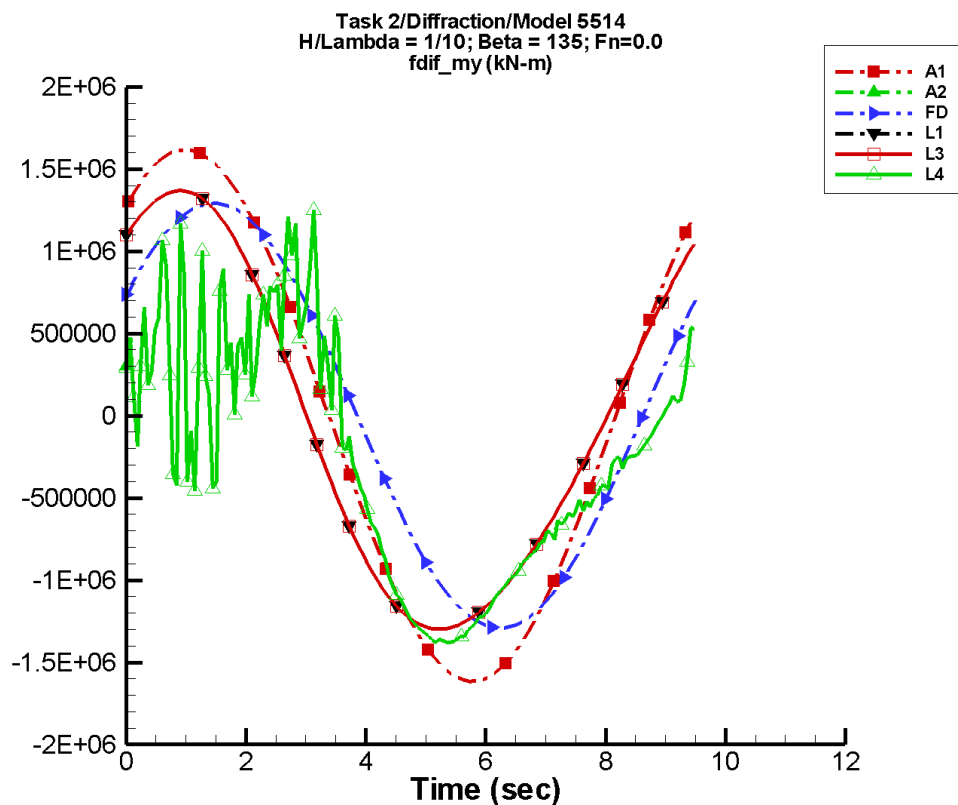
Table H-1869. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.23E+03	1.07E+06	47	3.39E+03	10
A2	-2.23E+03	1.07E+06	47	3.39E+03	10
FD	-26.2	8.61E+05	29	26.0	-102
L1	-1.66E+04	8.74E+05	59	5.52E+04	-27
L3	-1.66E+04	8.74E+05	59	5.52E+04	-27
L4	-1.32E+05	7.14E+05	50	7.21E+04	-130
NF	—	—	—	—	—
NS	1.48E+04	6.17E+05	44	4.63E+04	-15

Table H-1870. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.08E+06	1.08E+06	-1.06E+06	1.06E+06
A2	-1.08E+06	1.08E+06	-1.06E+06	1.06E+06
FD	-8.61E+05	8.61E+05	-8.51E+05	8.51E+05
L1	-8.65E+05	9.00E+05	-8.62E+05	8.96E+05
L3	-8.65E+05	9.00E+05	-8.62E+05	8.96E+05
L4	-8.99E+05	5.68E+05	-8.91E+05	5.49E+05
NF	—	—	—	—
NS	-5.70E+05	6.95E+05	-5.56E+05	6.85E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-936. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

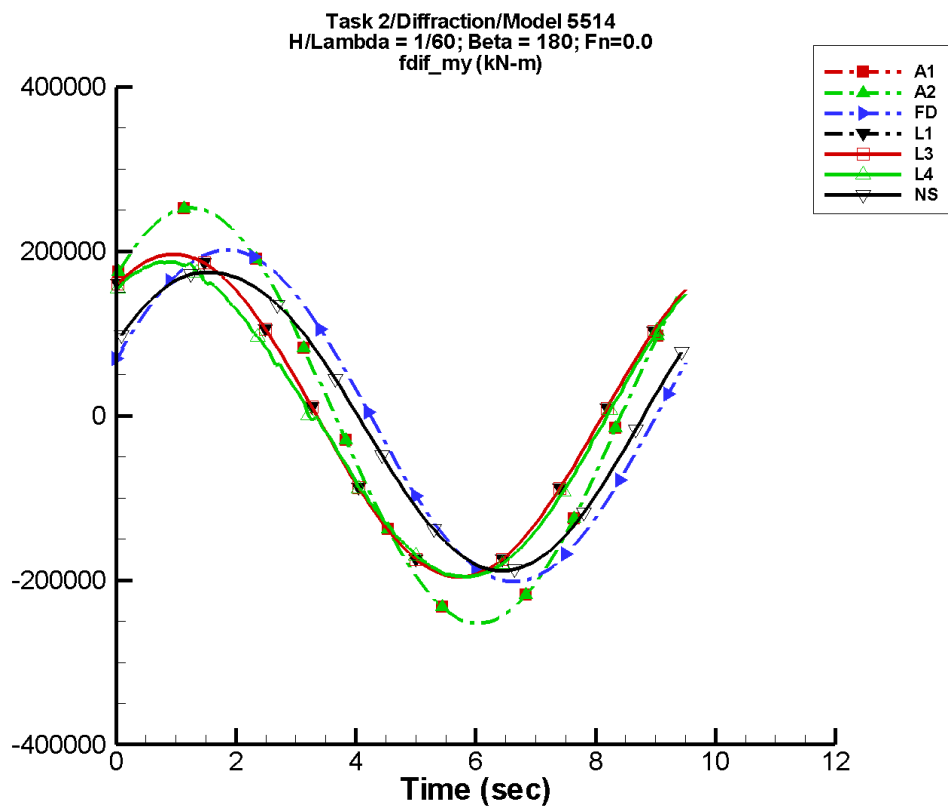
Table H-1871. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.35E+03	1.61E+06	47	5.09E+03	10
A2	6.75E+05	2.65E+06	-139	2.24E+06	73
FD	-39.1	1.29E+06	29	39.0	-102
L1	-3.68E+04	1.31E+06	59	1.24E+05	-27
L3	-3.68E+04	1.31E+06	59	1.24E+05	-27
L4	-2.62E+05	8.80E+05	37	3.47E+05	-144
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1872. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.62E+06	1.62E+06	-1.60E+06	1.60E+06
A2	1.92E+05	3.03E+05	1.92E+05	3.03E+05
FD	-1.29E+06	1.29E+06	-1.28E+06	1.28E+06
L1	-1.30E+06	1.37E+06	-1.29E+06	1.36E+06
L3	-1.30E+06	1.37E+06	-1.29E+06	1.36E+06
L4	-1.38E+06	1.25E+06	-1.37E+06	8.53E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-937. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1873. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

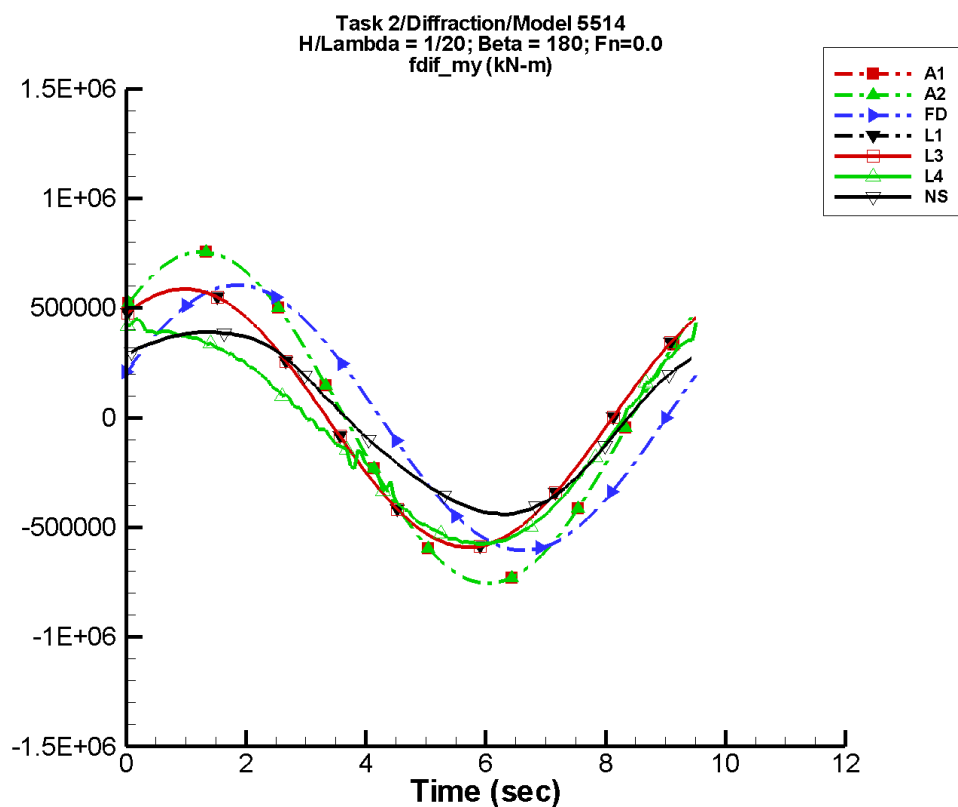
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-471.	2.52E+05	37	703.	6
A2	-471.	2.52E+05	37	703.	6
FD	-6.76	2.02E+05	14	6.30	-93
L1	-306.	1.96E+05	50	536.	-82
L3	-306.	1.96E+05	50	536.	-82
L4	-7.58E+03	1.89E+05	50	8.24E+03	85
NF	—	—	—	—	—
NS	-3.37E+03	1.83E+05	28	5.06E+03	107

Table H-1874. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.53E+05	2.53E+05	-2.50E+05	2.50E+05
A2	-2.53E+05	2.53E+05	-2.50E+05	2.50E+05
FD	-2.02E+05	2.02E+05	-1.99E+05	1.99E+05
L1	-1.96E+05	1.96E+05	-1.95E+05	1.96E+05
L3	-1.96E+05	1.96E+05	-1.95E+05	1.96E+05
L4	-1.96E+05	1.87E+05	-1.95E+05	1.86E+05
NF	—	—	—	—
NS	-1.89E+05	1.74E+05	-1.87E+05	1.73E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-938. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

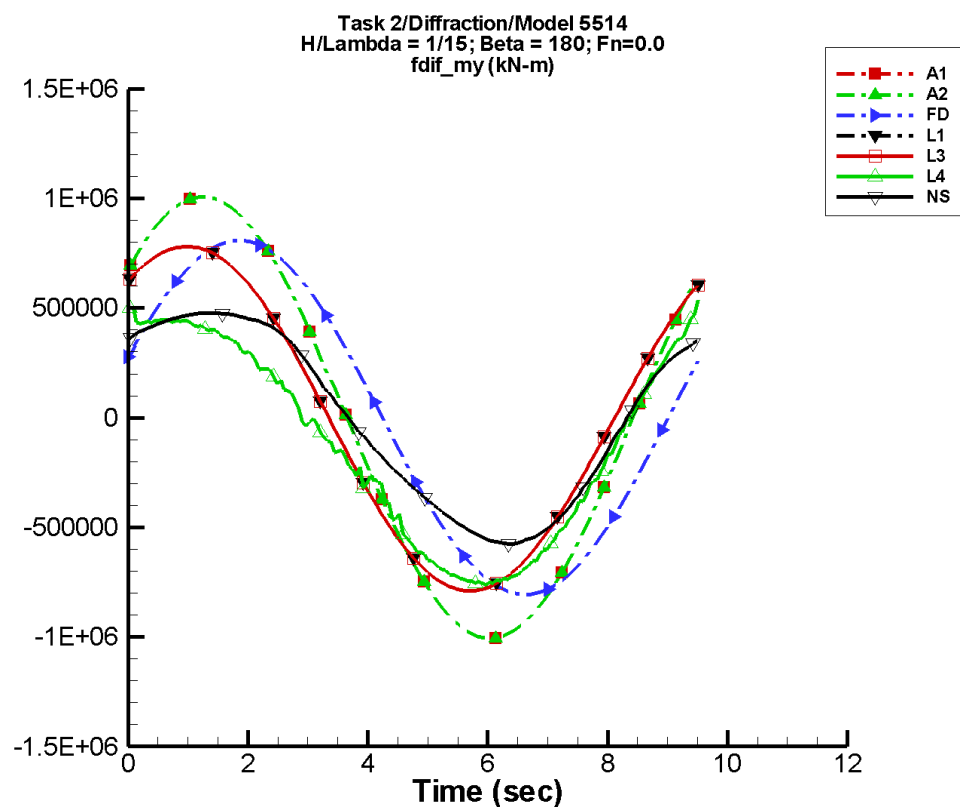
Table H-1875. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.41E+03	7.54E+05	37	2.10E+03	6
A2	-1.41E+03	7.54E+05	37	2.10E+03	6
FD	-20.3	6.05E+05	14	18.9	-93
L1	-2.10E+03	5.87E+05	50	4.82E+03	-97
L3	-2.10E+03	5.87E+05	50	4.82E+03	-97
L4	-7.62E+04	4.84E+05	51	5.64E+04	115
NF	—	—	—	—	—
NS	-4.70E+03	4.21E+05	40	2.11E+04	141

Table H-1876. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.56E+05	7.56E+05	-7.48E+05	7.48E+05
A2	-7.56E+05	7.56E+05	-7.48E+05	7.48E+05
FD	-6.05E+05	6.05E+05	-5.98E+05	5.98E+05
L1	-5.91E+05	5.87E+05	-5.89E+05	5.84E+05
L3	-5.91E+05	5.87E+05	-5.89E+05	5.84E+05
L4	-5.77E+05	4.51E+05	-5.73E+05	4.29E+05
NF	—	—	—	—
NS	-4.41E+05	3.92E+05	-4.35E+05	3.88E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-939. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

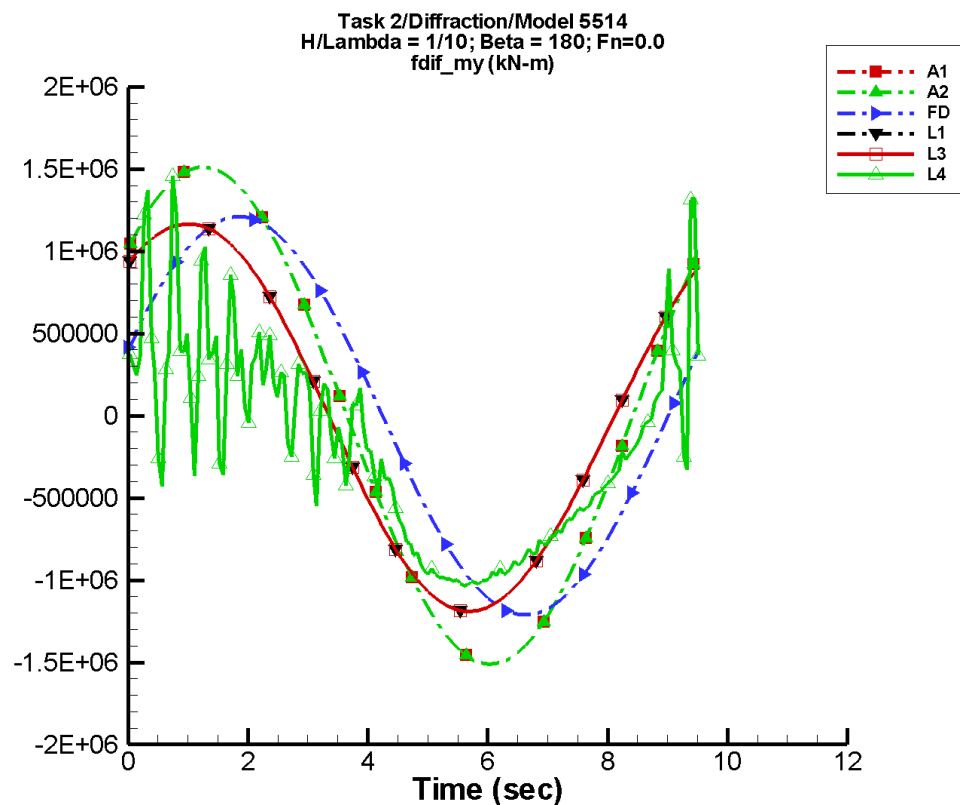
Table H-1877. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.88E+03	1.00E+06	37	2.80E+03	6
A2	-1.88E+03	1.00E+06	37	2.80E+03	6
FD	-27.0	8.07E+05	14	25.2	-93
L1	-3.58E+03	7.83E+05	50	8.61E+03	-99
L3	-3.58E+03	7.83E+05	50	8.61E+03	-99
L4	-1.25E+05	6.05E+05	49	6.91E+04	121
NF	—	—	—	—	—
NS	-7.75E+03	5.31E+05	40	4.03E+04	147

Table H-1878. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.01E+06	1.01E+06	-9.95E+05	9.96E+05
A2	-1.01E+06	1.01E+06	-9.95E+05	9.96E+05
FD	-8.07E+05	8.07E+05	-7.98E+05	7.98E+05
L1	-7.90E+05	7.81E+05	-7.86E+05	7.77E+05
L3	-7.90E+05	7.81E+05	-7.86E+05	7.77E+05
L4	-7.60E+05	5.38E+05	-7.52E+05	4.82E+05
NF	—	—	—	—
NS	-5.76E+05	4.79E+05	-5.70E+05	4.76E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-940. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

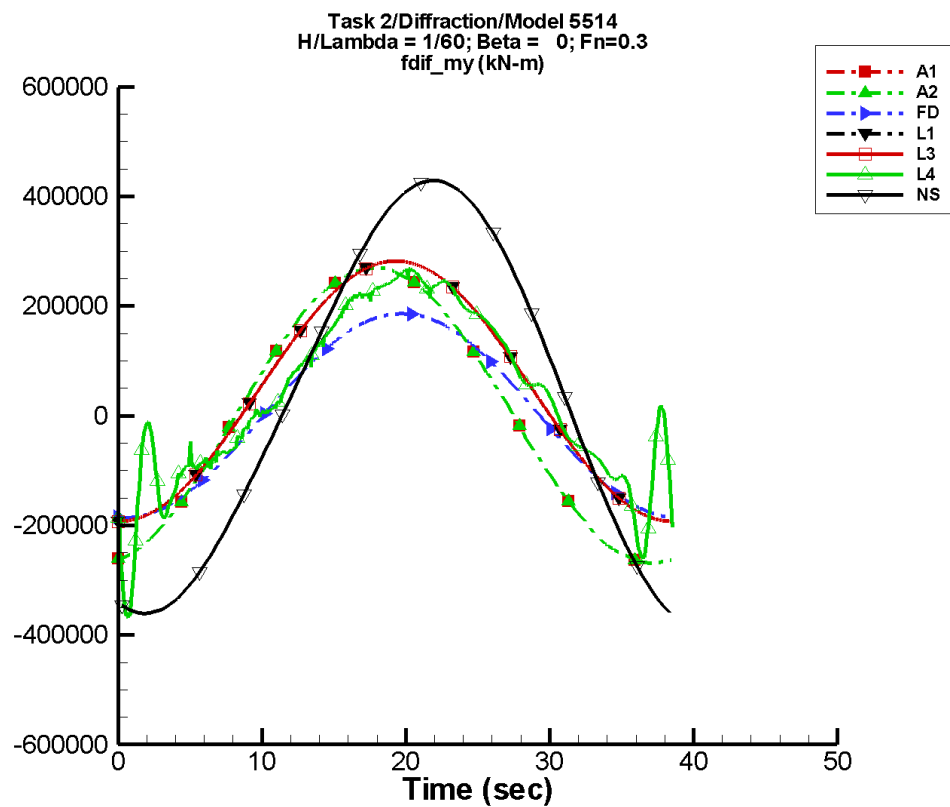
Table H-1879. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-2.82E+03	1.51E+06	37	4.21E+03	6
A2	-2.82E+03	1.51E+06	37	4.21E+03	6
FD	-40.5	1.21E+06	14	37.8	-93
L1	-7.72E+03	1.17E+06	50	1.95E+04	-101
L3	-7.72E+03	1.17E+06	50	1.95E+04	-101
L4	-2.08E+05	7.35E+05	44	1.14E+05	134
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1880. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.51E+06	1.51E+06	-1.50E+06	1.50E+06
A2	-1.51E+06	1.51E+06	-1.50E+06	1.50E+06
FD	-1.21E+06	1.21E+06	-1.20E+06	1.20E+06
L1	-1.19E+06	1.17E+06	-1.19E+06	1.16E+06
L3	-1.19E+06	1.17E+06	-1.19E+06	1.16E+06
L4	-1.04E+06	1.48E+06	-1.02E+06	5.84E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-941. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1881. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

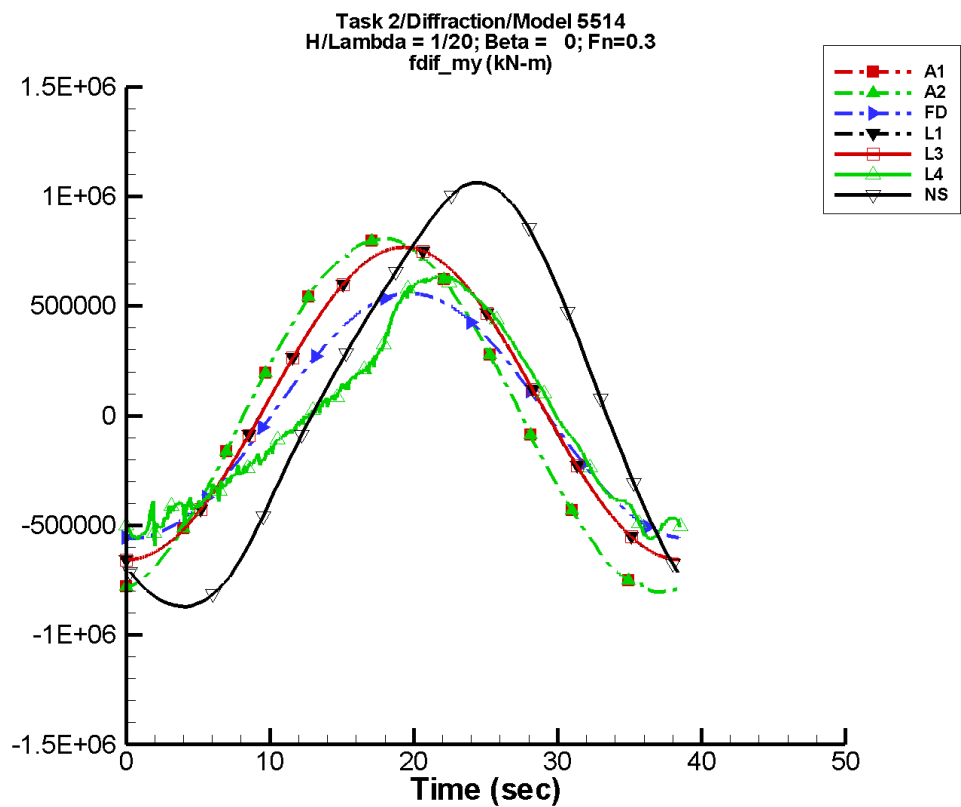
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-55.4	2.69E+05	-72	770.	-154
A2	-55.4	2.69E+05	-72	770.	-154
FD	-396.	1.86E+05	-87	330.	105
L1	4.37E+04	2.38E+05	-87	962.	89
L3	4.38E+04	2.38E+05	-88	933.	89
L4	3.52E+04	2.06E+05	-95	1.59E+04	41
NF	—	—	—	—	—
NS	2.43E+04	4.01E+05	-111	1.26E+04	-39

Table H-1882. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.69E+05	2.70E+05	-2.68E+05	2.70E+05
A2	-2.69E+05	2.70E+05	-2.68E+05	2.70E+05
FD	-1.86E+05	1.86E+05	-1.86E+05	1.86E+05
L1	-1.93E+05	2.82E+05	-1.93E+05	2.82E+05
L3	-1.93E+05	2.82E+05	-1.93E+05	2.82E+05
L4	-3.73E+05	2.68E+05	-3.64E+05	2.65E+05
NF	—	—	—	—
NS	-3.91E+05	4.29E+05	-3.87E+05	4.25E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-942. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

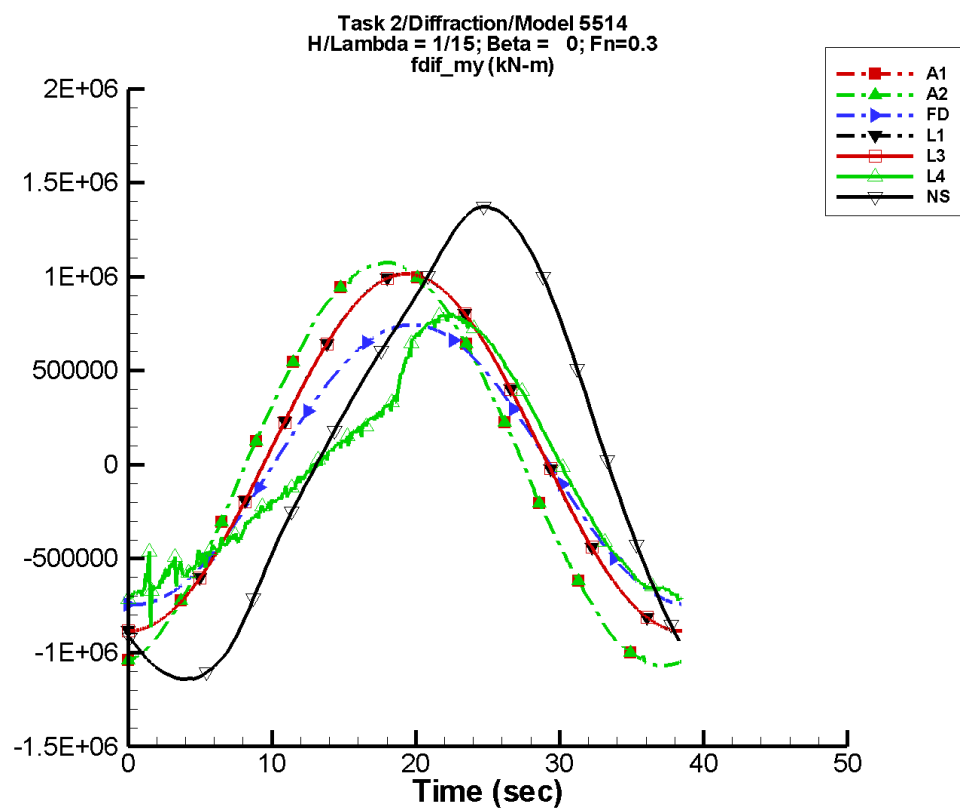
Table H-1883. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-166.	8.05E+05	-72	2.30E+03	-154
A2	-166.	8.05E+05	-72	2.30E+03	-154
FD	-1.19E+03	5.59E+05	-87	989.	105
L1	4.83E+04	7.13E+05	-87	6.95E+03	88
L3	4.84E+04	7.13E+05	-88	6.86E+03	87
L4	-2.31E+04	5.32E+05	-105	1.13E+05	9
NF	—	—	—	—	—
NS	6.64E+04	9.68E+05	-129	5.94E+04	-91

Table H-1884. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.03E+05	8.08E+05	-8.03E+05	8.07E+05
A2	-8.03E+05	8.08E+05	-8.03E+05	8.07E+05
FD	-5.58E+05	5.58E+05	-5.58E+05	5.58E+05
L1	-6.57E+05	7.68E+05	-6.57E+05	7.68E+05
L3	-6.57E+05	7.68E+05	-6.57E+05	7.68E+05
L4	-6.12E+05	6.45E+05	-5.59E+05	6.35E+05
NF	—	—	—	—
NS	-9.61E+05	1.06E+06	-9.50E+05	1.05E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-943. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

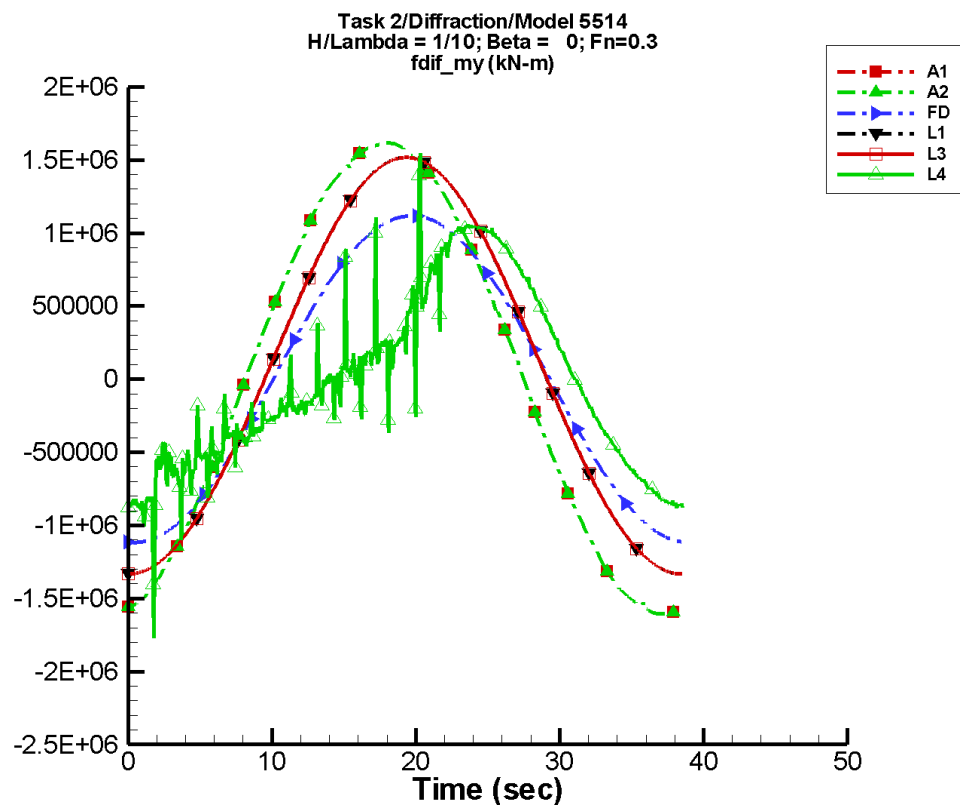
Table H-1885. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-221.	1.07E+06	-72	3.07E+03	-154
A2	-221.	1.07E+06	-72	3.07E+03	-154
FD	-1.58E+03	7.45E+05	-87	1.32E+03	105
L1	5.26E+04	9.51E+05	-87	1.20E+04	88
L3	5.28E+04	9.51E+05	-88	1.19E+04	87
L4	-4.62E+04	6.61E+05	-107	1.59E+05	-2
NF	—	—	—	—	—
NS	6.29E+04	1.24E+06	-130	1.16E+05	-91

Table H-1886. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.07E+06	1.08E+06	-1.07E+06	1.07E+06
A2	-1.07E+06	1.08E+06	-1.07E+06	1.07E+06
FD	-7.45E+05	7.45E+05	-7.44E+05	7.44E+05
L1	-8.85E+05	1.02E+06	-8.85E+05	1.01E+06
L3	-8.85E+05	1.02E+06	-8.85E+05	1.01E+06
L4	-8.65E+05	8.06E+05	-7.10E+05	7.93E+05
NF	—	—	—	—
NS	-1.27E+06	1.37E+06	-1.26E+06	1.36E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-944. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

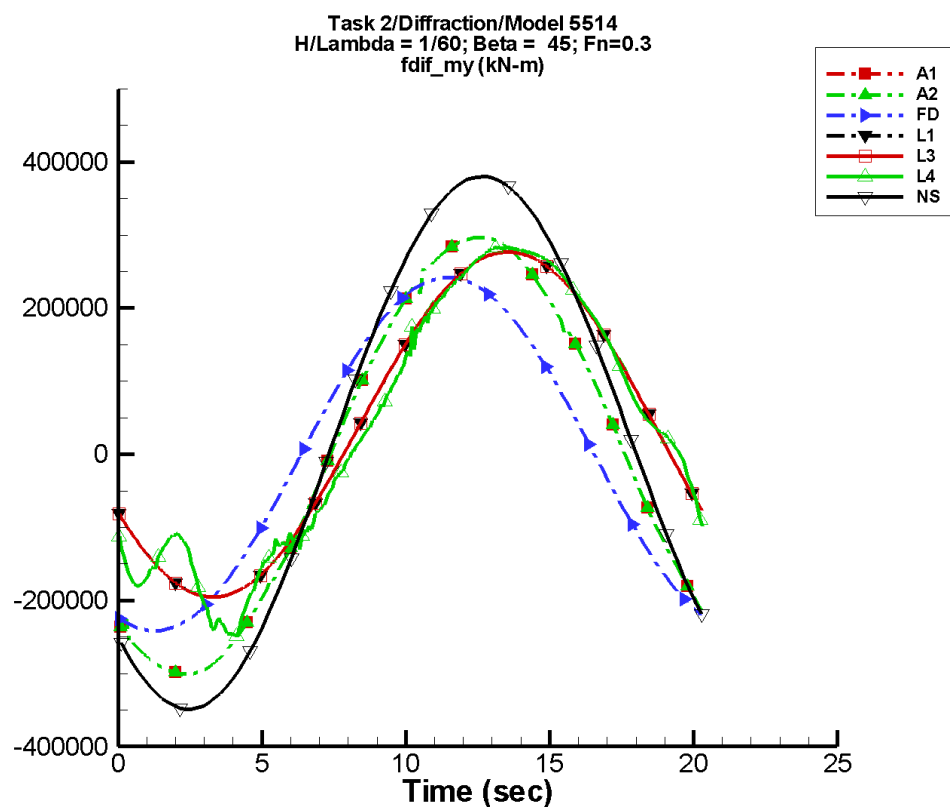
Table H-1887. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-331.	1.61E+06	-72	4.61E+03	-154
A2	-331.	1.61E+06	-72	4.61E+03	-154
FD	-2.37E+03	1.12E+06	-87	1.98E+03	105
L1	6.53E+04	1.43E+06	-87	2.61E+04	87
L3	6.56E+04	1.43E+06	-88	2.59E+04	87
L4	-3.01E+04	7.74E+05	-117	2.77E+05	-27
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1888. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.61E+06	1.62E+06	-1.61E+06	1.61E+06
A2	-1.61E+06	1.62E+06	-1.61E+06	1.61E+06
FD	-1.12E+06	1.12E+06	-1.12E+06	1.12E+06
L1	-1.33E+06	1.52E+06	-1.33E+06	1.52E+06
L3	-1.33E+06	1.52E+06	-1.33E+06	1.52E+06
L4	-1.77E+06	1.55E+06	-9.77E+05	1.04E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-945. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Table H-1889. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

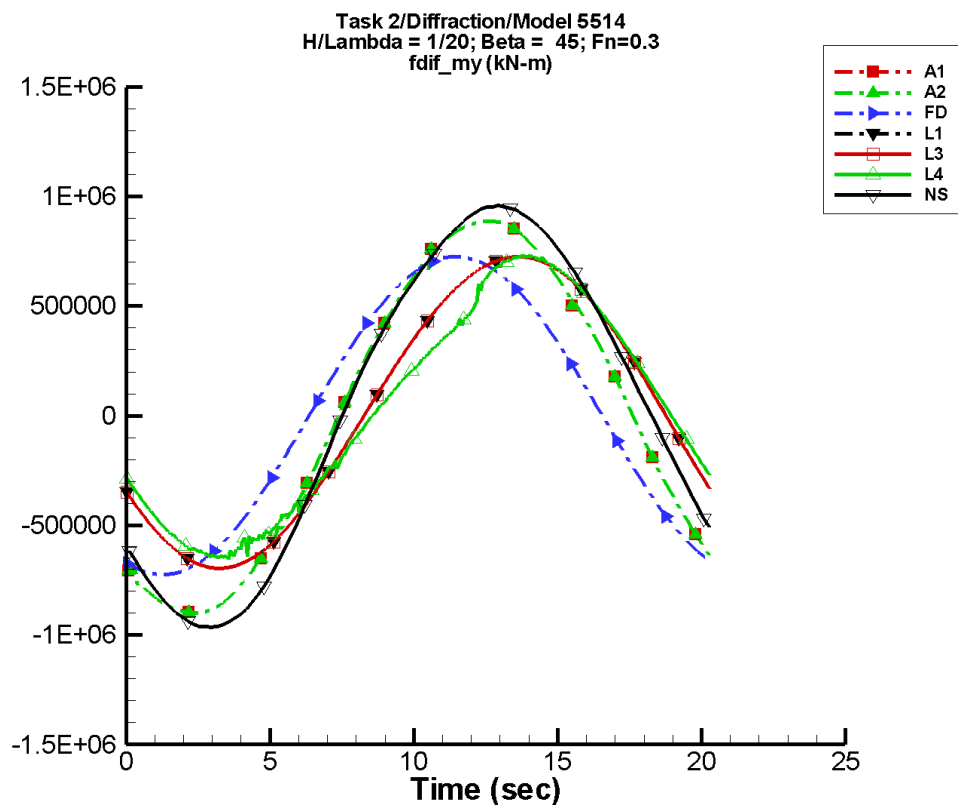
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.62E+03	2.95E+05	-139	1.53E+03	160
A2	1.62E+03	2.95E+05	-139	1.53E+03	160
FD	356.	2.42E+05	-124	376.	-161
L1	4.14E+04	2.36E+05	-153	1.64E+03	-165
L3	4.14E+04	2.36E+05	-153	1.63E+03	-164
L4	3.47E+04	2.40E+05	-154	8.71E+03	-58
NF	—	—	—	—	—
NS	2.44E+04	3.58E+05	-135	3.94E+03	174

Table H-1890. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.01E+05	2.97E+05	-3.00E+05	2.96E+05
A2	-3.01E+05	2.97E+05	-3.00E+05	2.96E+05
FD	-2.42E+05	2.42E+05	-2.41E+05	2.41E+05
L1	-1.97E+05	2.77E+05	-1.97E+05	2.77E+05
L3	-1.97E+05	2.77E+05	-1.97E+05	2.77E+05
L4	-2.51E+05	2.83E+05	-2.47E+05	2.82E+05
NF	—	—	—	—
NS	-3.49E+05	3.80E+05	-3.45E+05	3.76E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-946. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

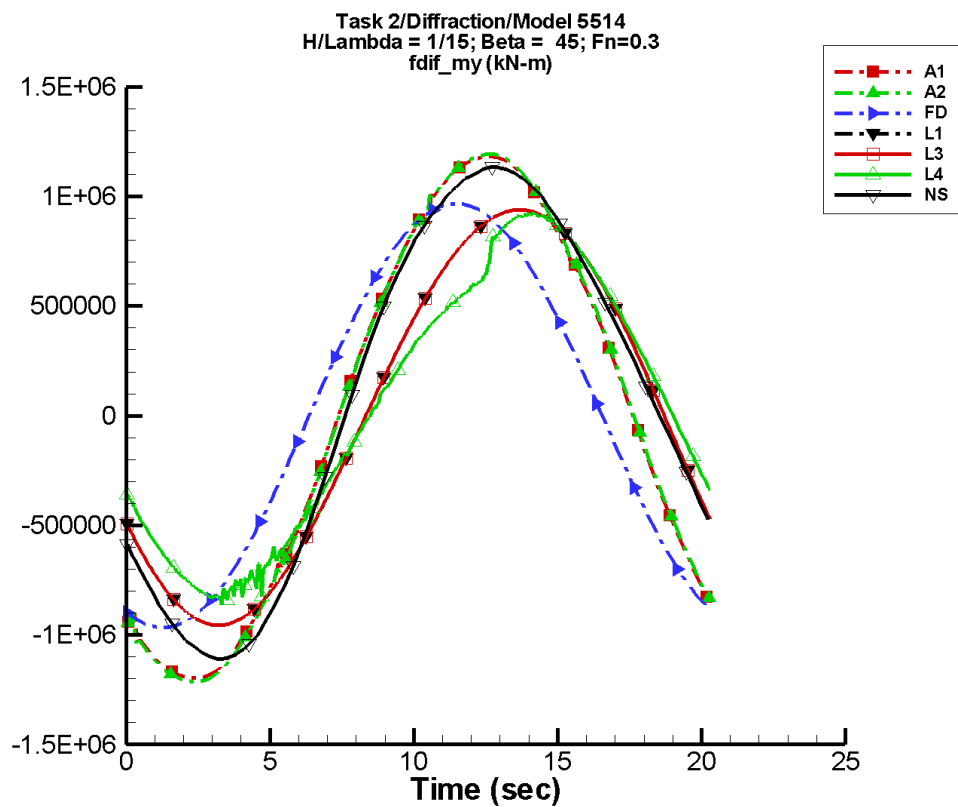
Table H–1891. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	4.83E+03	8.83E+05	-139	4.58E+03	160
A2	4.83E+03	8.83E+05	-139	4.58E+03	160
FD	1.07E+03	7.25E+05	-124	1.13E+03	-161
L1	2.39E+04	7.11E+05	-153	1.55E+04	-165
L3	2.38E+04	7.11E+05	-153	1.54E+04	-165
L4	2.13E+04	6.47E+05	-158	5.03E+04	-123
NF	—	—	—	—	—
NS	3.76E+04	9.35E+05	-140	4.15E+04	143

Table H–1892. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.99E+05	8.88E+05	-8.97E+05	8.86E+05
A2	-8.99E+05	8.88E+05	-8.97E+05	8.86E+05
FD	-7.25E+05	7.25E+05	-7.24E+05	7.23E+05
L1	-6.98E+05	7.24E+05	-6.97E+05	7.24E+05
L3	-6.98E+05	7.24E+05	-6.97E+05	7.24E+05
L4	-6.60E+05	7.28E+05	-6.45E+05	7.27E+05
NF	—	—	—	—
NS	-9.65E+05	9.58E+05	-9.54E+05	9.46E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-947. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

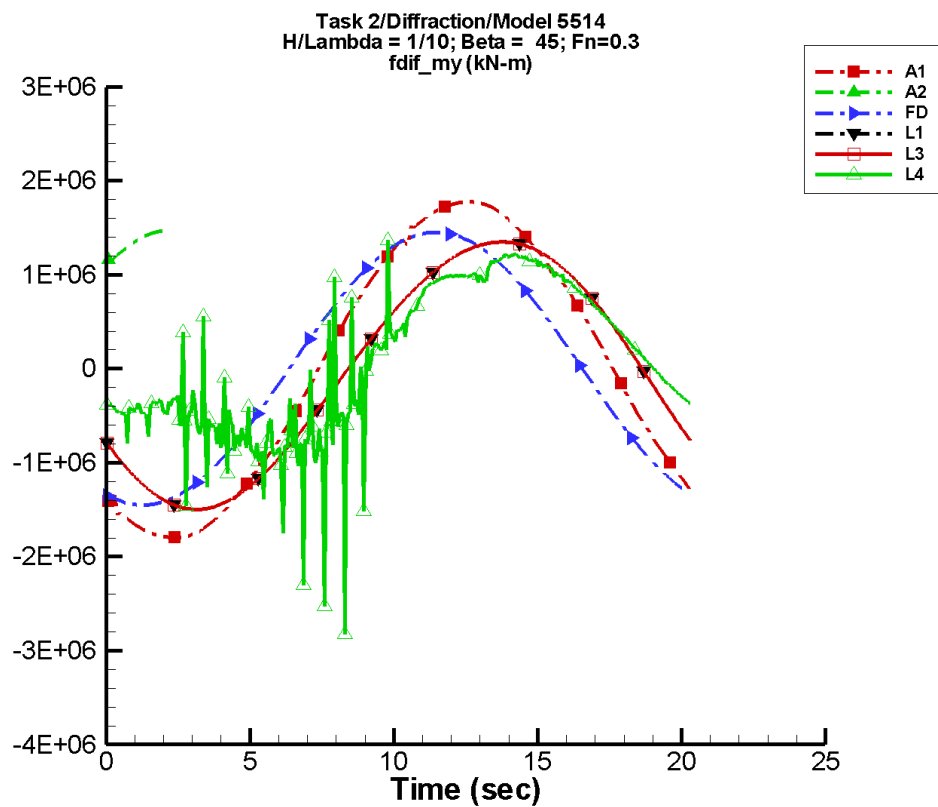
Table H-1893. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.44E+03	1.18E+06	-139	6.10E+03	160
A2	-4.14E+03	1.17E+06	-136	8.97E+03	169
FD	1.43E+03	9.67E+05	-124	1.50E+03	-161
L1	8.57E+03	9.48E+05	-153	2.76E+04	-166
L3	8.53E+03	9.48E+05	-153	2.75E+04	-165
L4	3.32E+04	8.20E+05	-157	6.46E+04	-141
NF	—	—	—	—	—
NS	7.20E+04	1.09E+06	-142	8.85E+04	108

Table H-1894. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.20E+06	1.18E+06	-1.19E+06	1.18E+06
A2	-1.21E+06	1.19E+06	-1.21E+06	1.19E+06
FD	-9.67E+05	9.67E+05	-9.65E+05	9.65E+05
L1	-9.59E+05	9.39E+05	-9.58E+05	9.38E+05
L3	-9.59E+05	9.39E+05	-9.58E+05	9.38E+05
L4	-8.81E+05	9.26E+05	-8.31E+05	9.18E+05
NF	—	—	—	—
NS	-1.11E+06	1.14E+06	-1.10E+06	1.12E+06

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-948. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

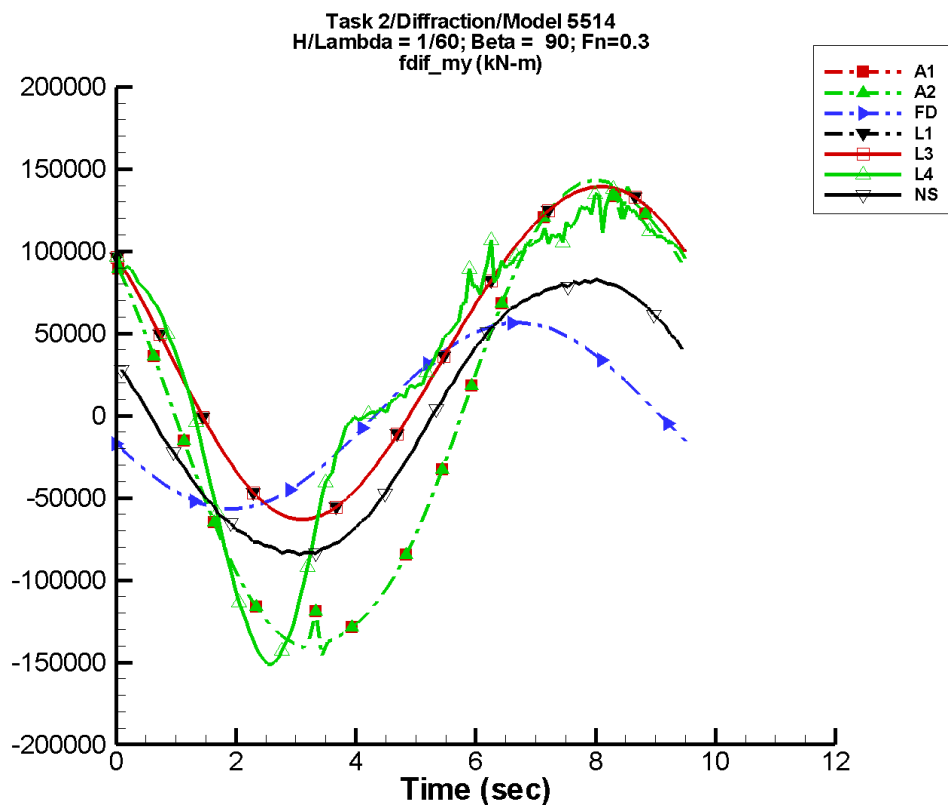
Table H-1895. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	9.67E+03	1.77E+06	-139	9.17E+03	160
A2	1.84E+06	1.83E+06	-57	7.90E+05	88
FD	2.14E+03	1.45E+06	-124	2.25E+03	-161
L1	-3.51E+04	1.42E+06	-153	6.23E+04	-166
L3	-3.51E+04	1.42E+06	-153	6.22E+04	-166
L4	8.37E+04	9.85E+05	-167	2.58E+05	-16
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1896. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.80E+06	1.78E+06	-1.79E+06	1.77E+06
A2	-2.23E+05	1.47E+06	-2.17E+05	1.49E+06
FD	-1.45E+06	1.45E+06	-1.45E+06	1.45E+06
L1	-1.50E+06	1.35E+06	-1.50E+06	1.35E+06
L3	-1.50E+06	1.35E+06	-1.50E+06	1.35E+06
L4	-2.91E+06	1.37E+06	-1.03E+06	1.21E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-949. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1897. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

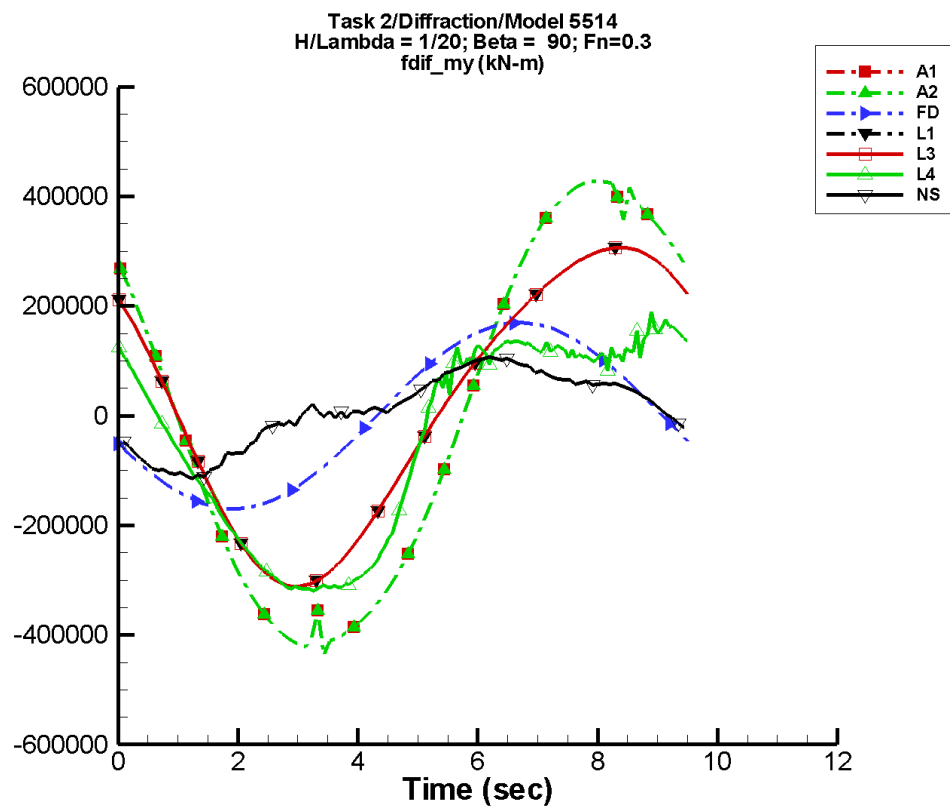
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	537.	1.44E+05	139	118.	-83
A2	537.	1.44E+05	139	118.	-83
FD	1.91	5.66E+04	-168	1.75	90
L1	4.07E+04	1.01E+05	146	4.31E+03	76
L3	4.07E+04	1.01E+05	146	4.31E+03	76
L4	3.28E+04	1.12E+05	155	3.79E+04	84
NF	—	—	—	—	—
NS	878.	8.51E+04	158	1.52E+03	29

Table H-1898. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.46E+05	1.43E+05	-1.36E+05	1.40E+05
A2	-1.46E+05	1.43E+05	-1.36E+05	1.40E+05
FD	-5.65E+04	5.65E+04	-5.59E+04	5.59E+04
L1	-6.30E+04	1.39E+05	-6.26E+04	1.39E+05
L3	-6.30E+04	1.39E+05	-6.26E+04	1.39E+05
L4	-1.52E+05	1.38E+05	-1.48E+05	1.29E+05
NF	—	—	—	—
NS	-8.47E+04	8.27E+04	-8.30E+04	8.11E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-950. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

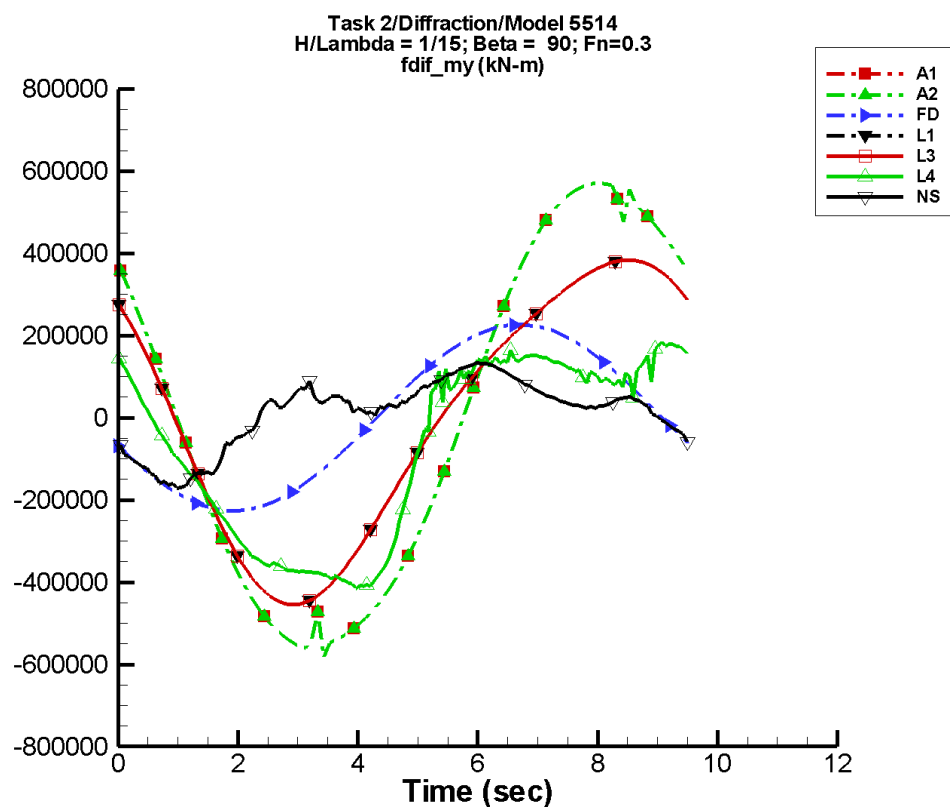
Table H-1899. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.61E+03	4.31E+05	139	353.	-83
A2	1.61E+03	4.31E+05	139	353.	-83
FD	5.72	1.70E+05	-168	5.24	90
L1	1.89E+04	3.02E+05	146	3.93E+04	75
L3	1.89E+04	3.02E+05	146	3.93E+04	75
L4	-4.43E+04	2.37E+05	151	6.62E+04	21
NF	—	—	—	—	—
NS	1.05E+04	8.55E+04	-148	2.24E+04	-143

Table H-1900. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.37E+05	4.28E+05	-4.08E+05	4.20E+05
A2	-4.37E+05	4.28E+05	-4.08E+05	4.20E+05
FD	-1.70E+05	1.70E+05	-1.68E+05	1.68E+05
L1	-3.11E+05	3.07E+05	-3.10E+05	3.06E+05
L3	-3.11E+05	3.07E+05	-3.10E+05	3.06E+05
L4	-3.21E+05	1.90E+05	-3.16E+05	1.62E+05
NF	—	—	—	—
NS	-1.15E+05	1.07E+05	-1.08E+05	1.02E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-951. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

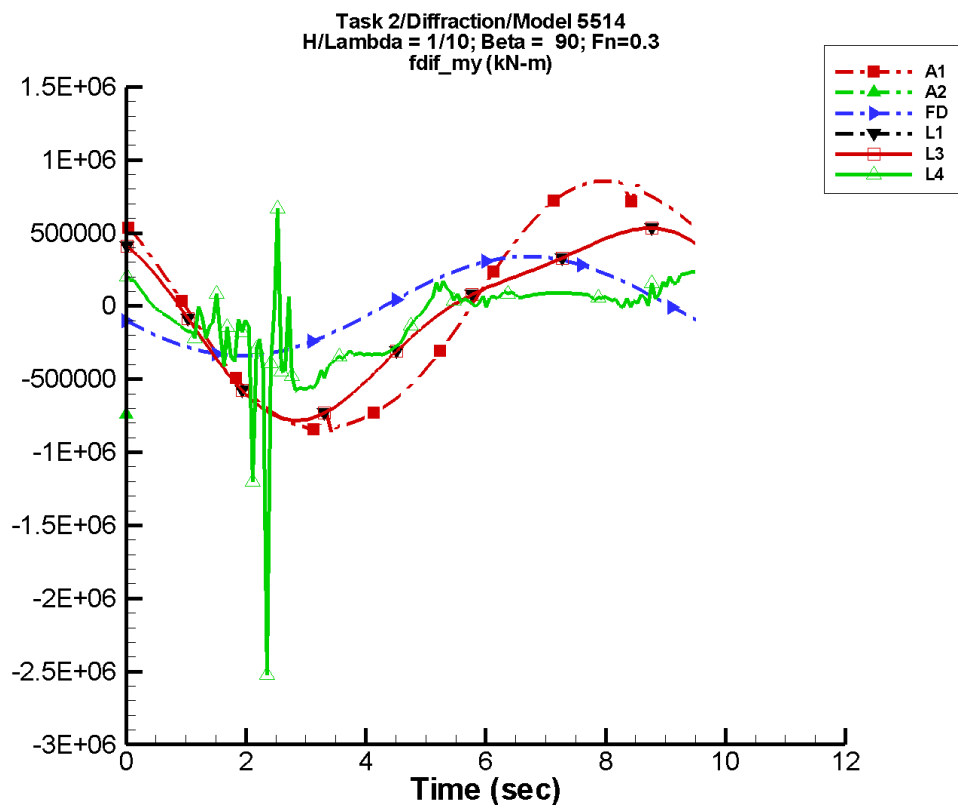
Table H-1901. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.14E+03	5.74E+05	139	469.	-83
A2	2.14E+03	5.74E+05	139	469.	-83
FD	7.64	2.26E+05	-168	6.98	90
L1	-190.	4.03E+05	146	6.99E+04	75
L3	-196.	4.03E+05	146	6.99E+04	75
L4	-7.47E+04	2.85E+05	152	8.21E+04	12
NF	—	—	—	—	—
NS	1.14E+04	9.87E+04	-128	3.88E+04	-143

Table H-1902. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.82E+05	5.70E+05	-5.43E+05	5.60E+05
A2	-5.82E+05	5.70E+05	-5.43E+05	5.60E+05
FD	-2.26E+05	2.26E+05	-2.24E+05	2.24E+05
L1	-4.55E+05	3.83E+05	-4.52E+05	3.82E+05
L3	-4.55E+05	3.83E+05	-4.52E+05	3.82E+05
L4	-4.16E+05	1.85E+05	-4.07E+05	1.74E+05
NF	—	—	—	—
NS	-1.72E+05	1.33E+05	-1.60E+05	1.28E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-952. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

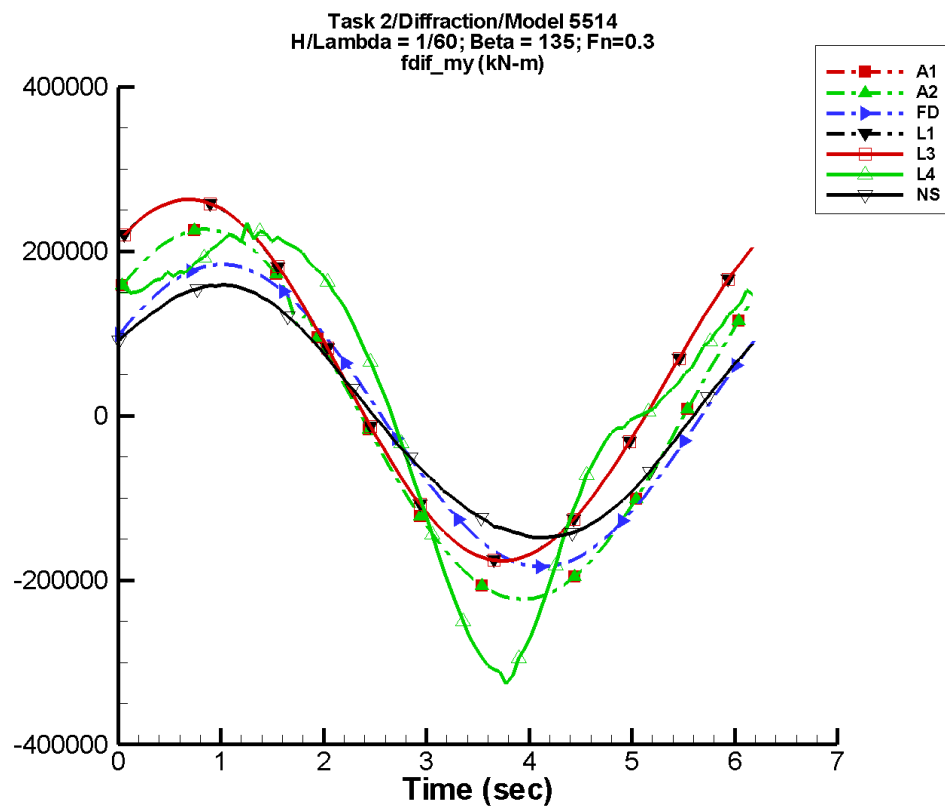
Table H-1903. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	3.21E+03	8.62E+05	139	705.	-83
A2	-2.31E+05	3.50E+05	7	8.88E+05	80
FD	11.4	3.39E+05	-168	10.5	90
L1	-5.45E+04	6.04E+05	146	1.57E+05	75
L3	-5.45E+04	6.04E+05	146	1.57E+05	75
L4	-8.75E+04	2.70E+05	153	1.18E+05	46
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1904. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.74E+05	8.56E+05	-8.16E+05	8.40E+05
A2	-7.44E+05	-7.07E+05	-7.44E+05	-7.07E+05
FD	-3.39E+05	3.39E+05	-3.36E+05	3.36E+05
L1	-7.82E+05	5.33E+05	-7.78E+05	5.30E+05
L3	-7.82E+05	5.33E+05	-7.78E+05	5.30E+05
L4	-2.52E+06	9.05E+05	-5.75E+05	2.24E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-953. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1905. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

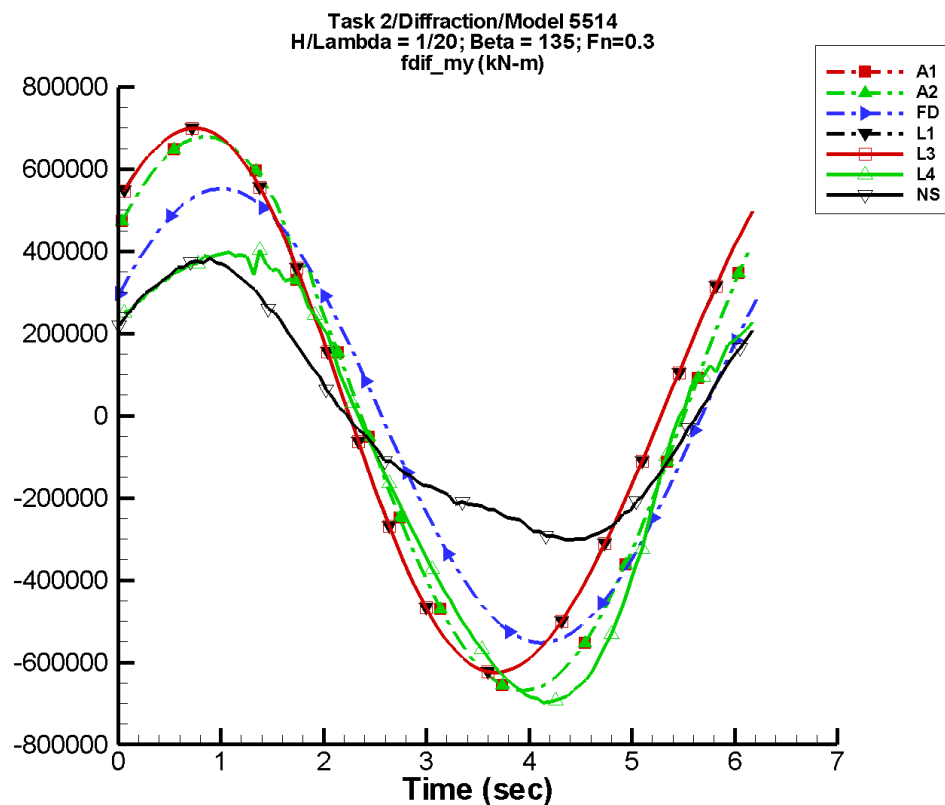
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.20E+03	2.25E+05	36	2.44E+03	-24
A2	-1.20E+03	2.25E+05	36	2.44E+03	-24
FD	35.9	1.84E+05	10	116.	29
L1	4.23E+04	2.20E+05	42	3.60E+03	-82
L3	4.23E+04	2.20E+05	42	3.59E+03	-82
L4	2.34E+04	2.26E+05	34	7.54E+04	-163
NF	—	—	—	—	—
NS	2.93E+03	1.54E+05	34	3.39E+03	-5

Table H-1906. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.24E+05	2.28E+05	-2.18E+05	2.21E+05
A2	-2.24E+05	2.28E+05	-2.18E+05	2.21E+05
FD	-1.84E+05	1.84E+05	-1.79E+05	1.80E+05
L1	-1.77E+05	2.63E+05	-1.75E+05	2.61E+05
L3	-1.77E+05	2.63E+05	-1.75E+05	2.61E+05
L4	-3.26E+05	2.35E+05	-3.05E+05	2.20E+05
NF	—	—	—	—
NS	-1.48E+05	1.64E+05	-1.47E+05	1.61E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-954. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

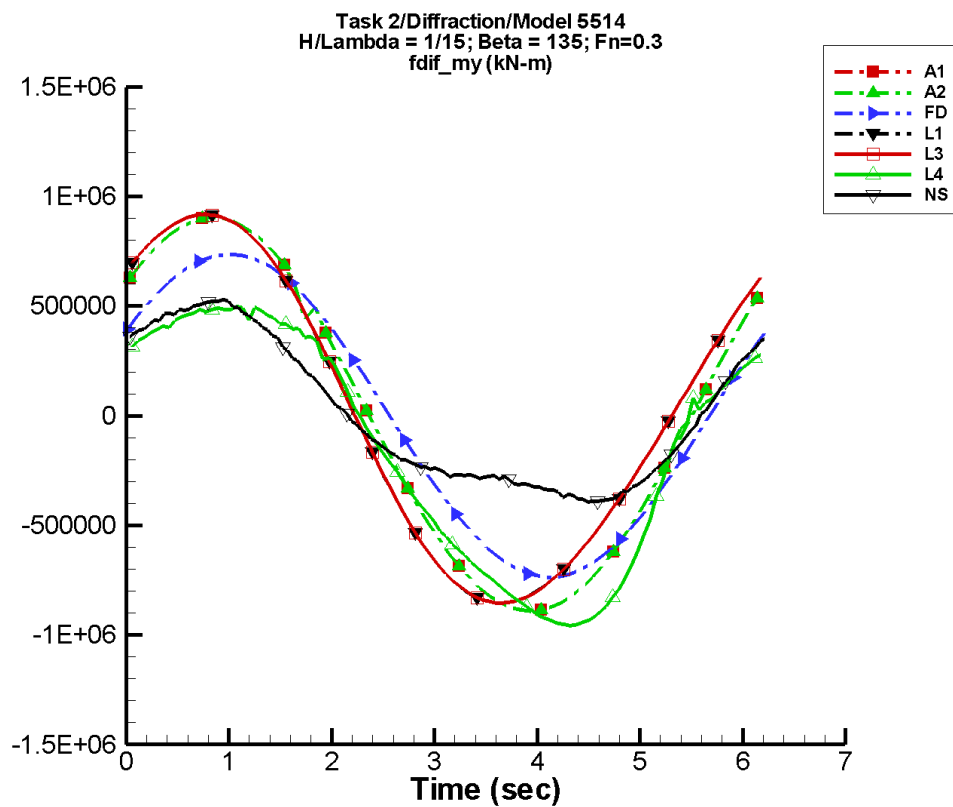
Table H–1907. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.59E+03	6.72E+05	36	7.31E+03	-24
A2	-3.59E+03	6.72E+05	36	7.31E+03	-24
FD	108.	5.52E+05	10	347.	29
L1	3.14E+04	6.59E+05	42	3.18E+04	-85
L3	3.14E+04	6.59E+05	42	3.18E+04	-85
L4	-9.20E+04	5.41E+05	28	7.02E+04	147
NF	—	—	—	—	—
NS	182.	3.26E+05	39	5.95E+04	18

Table H–1908. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.69E+05	6.82E+05	-6.52E+05	6.63E+05
A2	-6.69E+05	6.82E+05	-6.52E+05	6.63E+05
FD	-5.52E+05	5.52E+05	-5.38E+05	5.39E+05
L1	-6.25E+05	6.99E+05	-6.19E+05	6.95E+05
L3	-6.25E+05	6.99E+05	-6.19E+05	6.95E+05
L4	-6.98E+05	4.03E+05	-6.88E+05	3.88E+05
NF	—	—	—	—
NS	-3.01E+05	3.93E+05	-2.97E+05	3.81E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-955. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

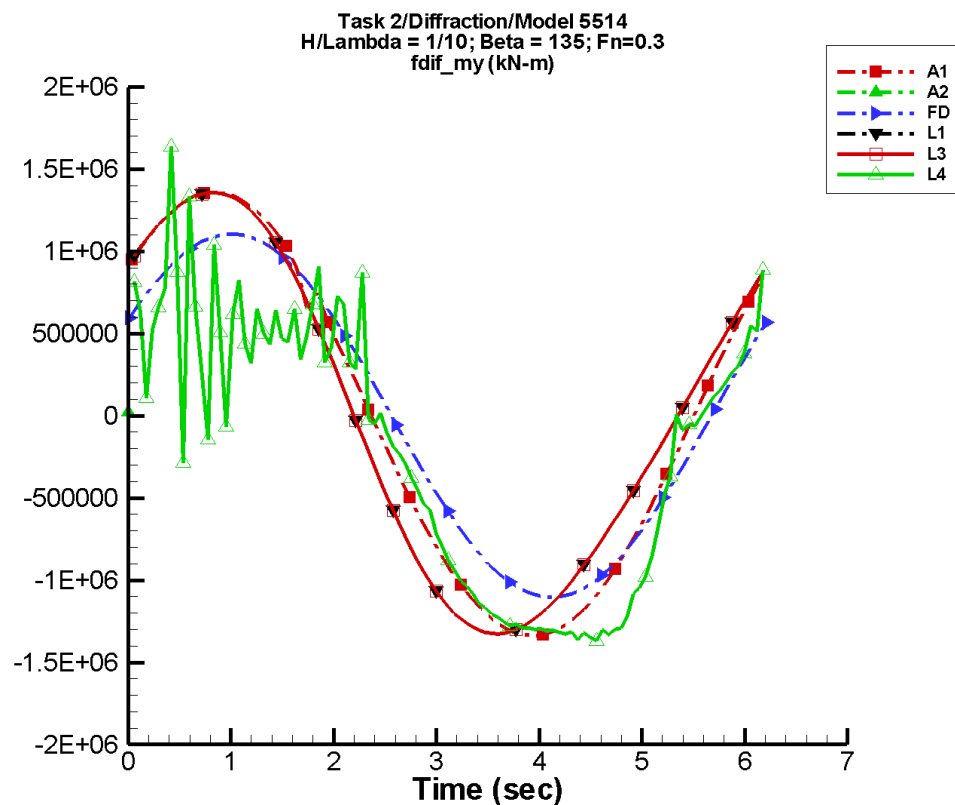
Table H-1909. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-4.77E+03	8.95E+05	36	9.73E+03	-24
A2	-4.77E+03	8.95E+05	36	9.73E+03	-24
FD	144.	7.37E+05	10	463.	29
L1	2.20E+04	8.79E+05	42	5.66E+04	-85
L3	2.20E+04	8.79E+05	42	5.66E+04	-85
L4	-1.52E+05	7.15E+05	28	8.52E+04	132
NF	—	—	—	—	—
NS	6.55E+03	4.37E+05	42	9.99E+04	19

Table H-1910. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-8.91E+05	9.08E+05	-8.69E+05	8.82E+05
A2	-8.91E+05	9.08E+05	-8.69E+05	8.82E+05
FD	-7.36E+05	7.36E+05	-7.17E+05	7.19E+05
L1	-8.54E+05	9.18E+05	-8.46E+05	9.14E+05
L3	-8.54E+05	9.18E+05	-8.46E+05	9.14E+05
L4	-9.58E+05	4.96E+05	-9.44E+05	4.86E+05
NF	—	—	—	—
NS	-3.94E+05	5.45E+05	-3.85E+05	5.34E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-956. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

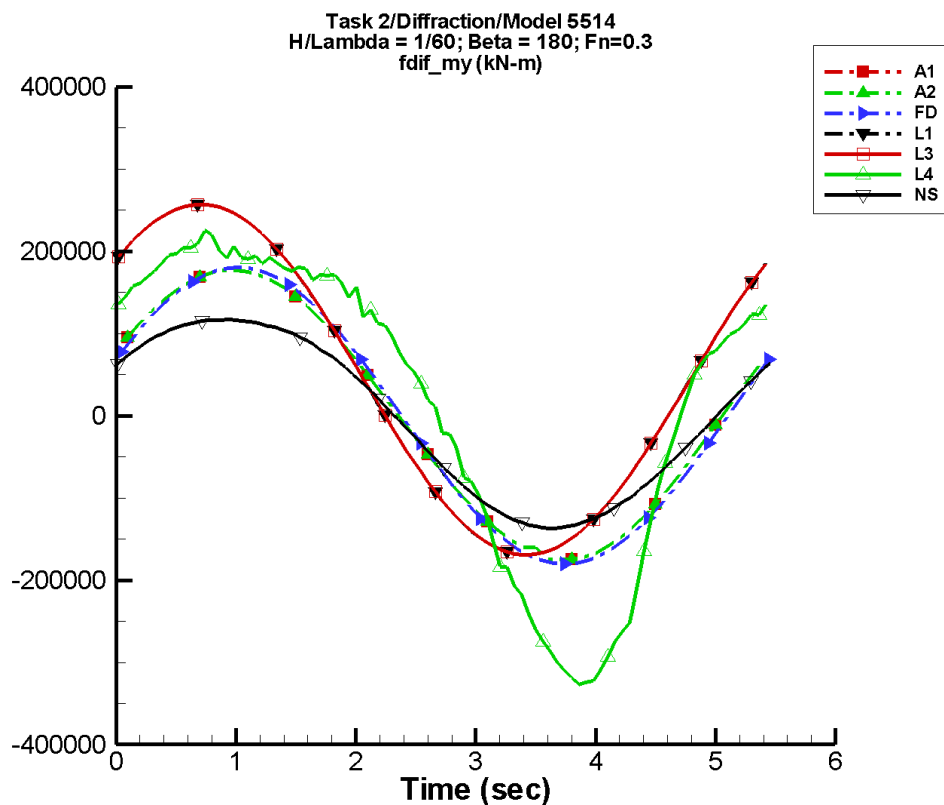
Table H-1911. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-7.17E+03	1.34E+06	36	1.46E+04	-24
A2	3.10E+04	1.20E+05	-49	6.75E+05	90
FD	216.	1.10E+06	10	694.	29
L1	-4.64E+03	1.32E+06	42	1.27E+05	-86
L3	-4.62E+03	1.32E+06	42	1.27E+05	-86
L4	-2.09E+05	1.06E+06	26	2.35E+05	127
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1912. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.34E+06	1.36E+06	-1.30E+06	1.33E+06
A2	-1.12E+05	2.31E+04	-1.12E+05	2.31E+04
FD	-1.10E+06	1.10E+06	-1.08E+06	1.08E+06
L1	-1.33E+06	1.36E+06	-1.31E+06	1.36E+06
L3	-1.33E+06	1.36E+06	-1.31E+06	1.36E+06
L4	-1.37E+06	1.64E+06	-1.33E+06	7.43E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-957. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H–1913. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

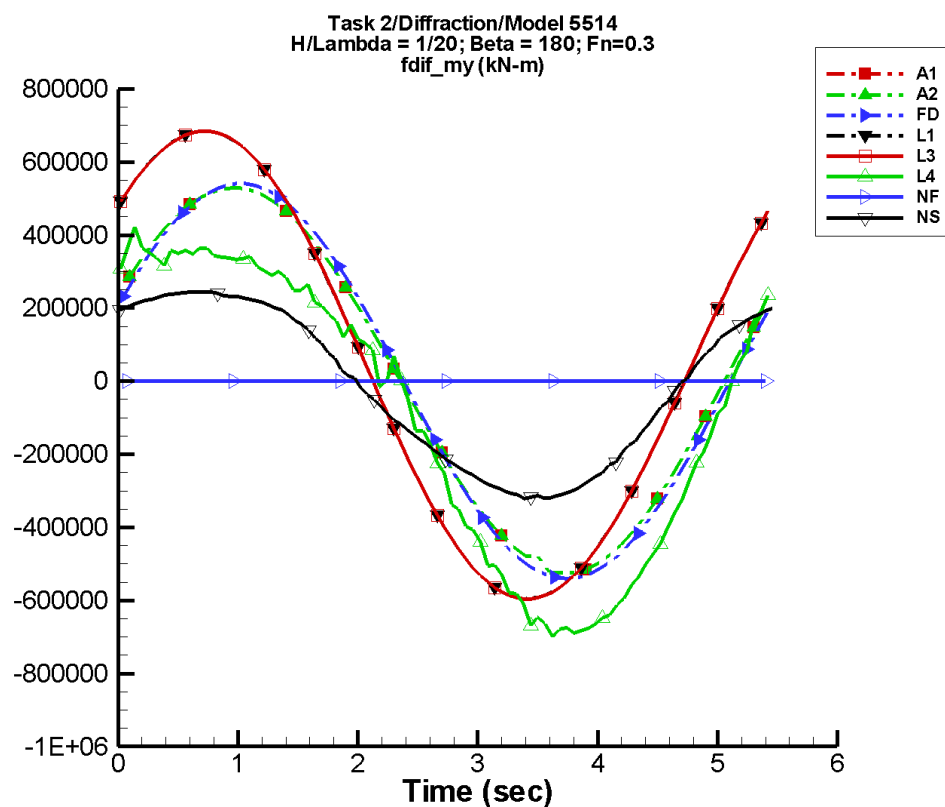
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.05E+03	1.75E+05	32	2.42E+03	89
A2	2.05E+03	1.75E+05	32	2.42E+03	89
FD	213.	1.80E+05	115	821.	21
L1	4.39E+04	2.13E+05	66	1.20E+03	-55
L3	4.39E+04	2.13E+05	66	1.20E+03	-54
L4	1.55E+04	2.41E+05	45	7.17E+04	170
NF	—	—	—	—	—
NS	-2.50E+03	1.29E+05	30	6.68E+03	151

Table H–1914. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.75E+05	1.77E+05	-1.68E+05	1.71E+05
A2	-1.75E+05	1.77E+05	-1.68E+05	1.71E+05
FD	-1.80E+05	1.80E+05	-1.74E+05	1.75E+05
L1	-1.69E+05	2.57E+05	-1.67E+05	2.54E+05
L3	-1.69E+05	2.57E+05	-1.67E+05	2.54E+05
L4	-3.28E+05	2.26E+05	-3.13E+05	2.08E+05
NF	—	—	—	—
NS	-1.37E+05	1.19E+05	-1.35E+05	1.18E+05



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-958. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

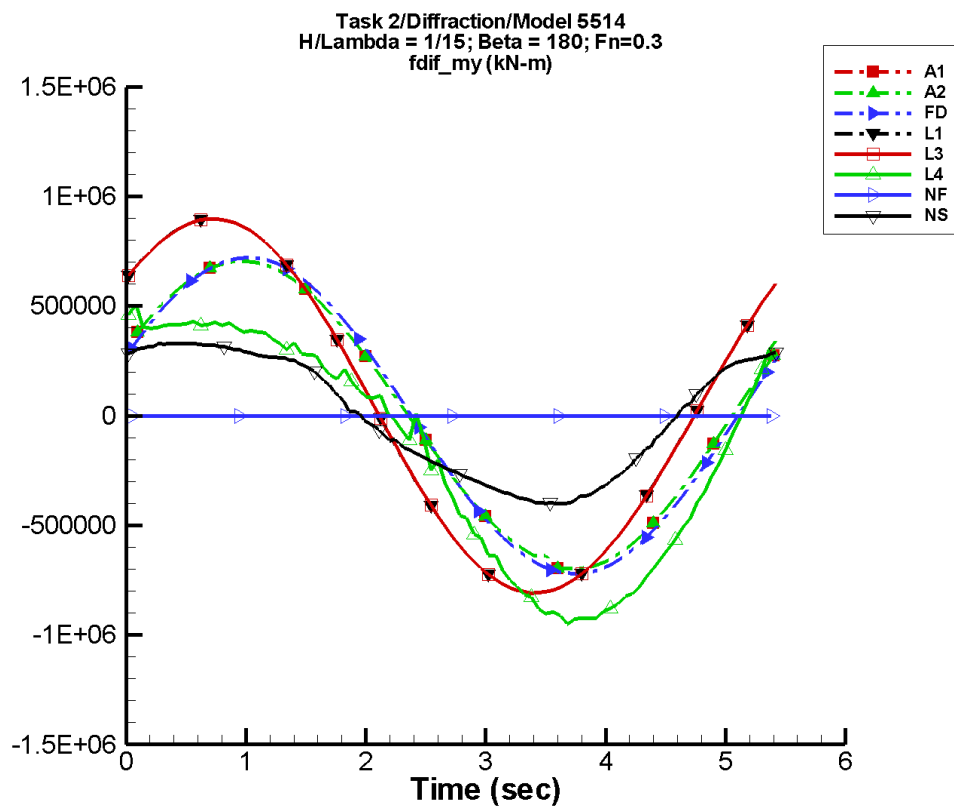
Table H–1915. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	6.14E+03	5.24E+05	32	7.23E+03	89
A2	6.14E+03	5.24E+05	32	7.23E+03	89
FD	640.	5.40E+05	115	2.46E+03	21
L1	4.50E+04	6.39E+05	66	7.12E+03	-54
L3	4.50E+04	6.39E+05	66	7.14E+03	-54
L4	-9.75E+04	5.28E+05	50	9.29E+04	154
NF	—	—	—	—	—
NS	-1.56E+04	2.87E+05	48	2.17E+04	166

Table H–1916. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.24E+05	5.29E+05	-5.03E+05	5.12E+05
A2	-5.24E+05	5.29E+05	-5.03E+05	5.12E+05
FD	-5.41E+05	5.41E+05	-5.23E+05	5.24E+05
L1	-5.95E+05	6.84E+05	-5.88E+05	6.76E+05
L3	-5.95E+05	6.84E+05	-5.88E+05	6.76E+05
L4	-7.04E+05	4.23E+05	-6.80E+05	3.55E+05
NF	—	—	—	—
NS	-3.21E+05	2.49E+05	-3.16E+05	2.47E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-959. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

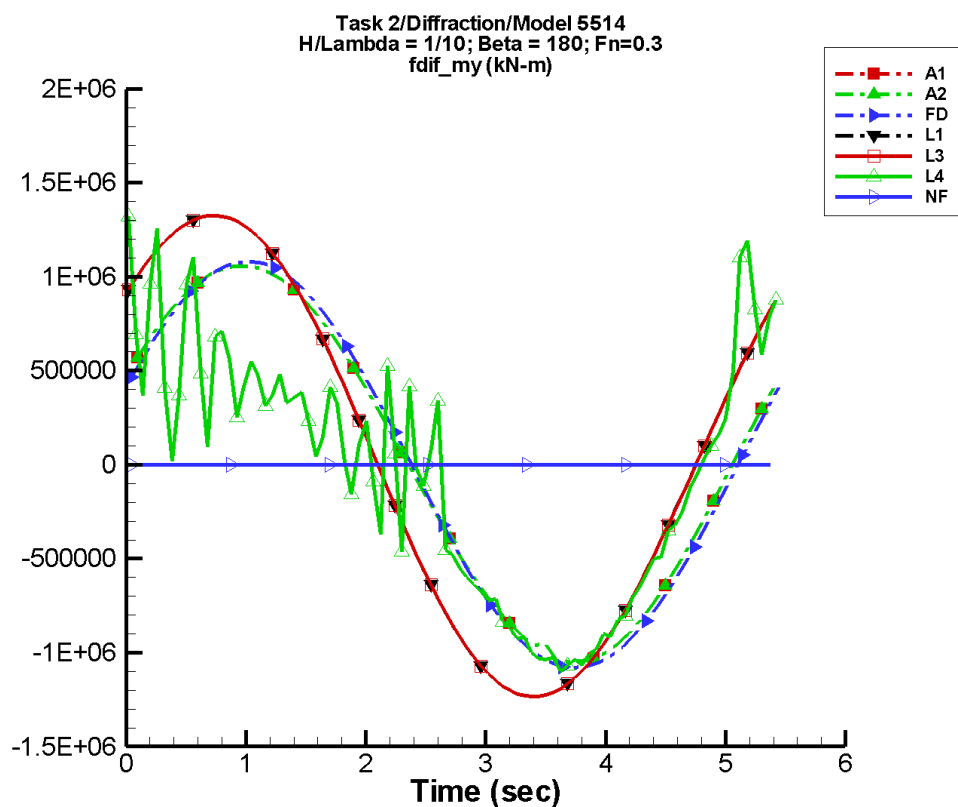
Table H–1917. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	8.17E+03	6.97E+05	32	9.63E+03	89
A2	8.17E+03	6.97E+05	32	9.63E+03	89
FD	853.	7.20E+05	115	3.29E+03	21
L1	4.60E+04	8.52E+05	66	1.19E+04	-54
L3	4.59E+04	8.52E+05	66	1.20E+04	-54
L4	-1.62E+05	6.81E+05	51	1.33E+05	153
NF	—	—	—	—	—
NS	1.50E+03	3.71E+05	53	3.92E+04	157

Table H–1918. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.98E+05	7.04E+05	-6.69E+05	6.82E+05
A2	-6.98E+05	7.04E+05	-6.69E+05	6.82E+05
FD	-7.21E+05	7.21E+05	-6.97E+05	6.98E+05
L1	-8.08E+05	8.98E+05	-7.98E+05	8.88E+05
L3	-8.08E+05	8.98E+05	-7.98E+05	8.88E+05
L4	-9.52E+05	5.09E+05	-9.21E+05	4.56E+05
NF	—	—	—	—
NS	-4.01E+05	3.43E+05	-3.97E+05	3.41E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-960. Time history of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

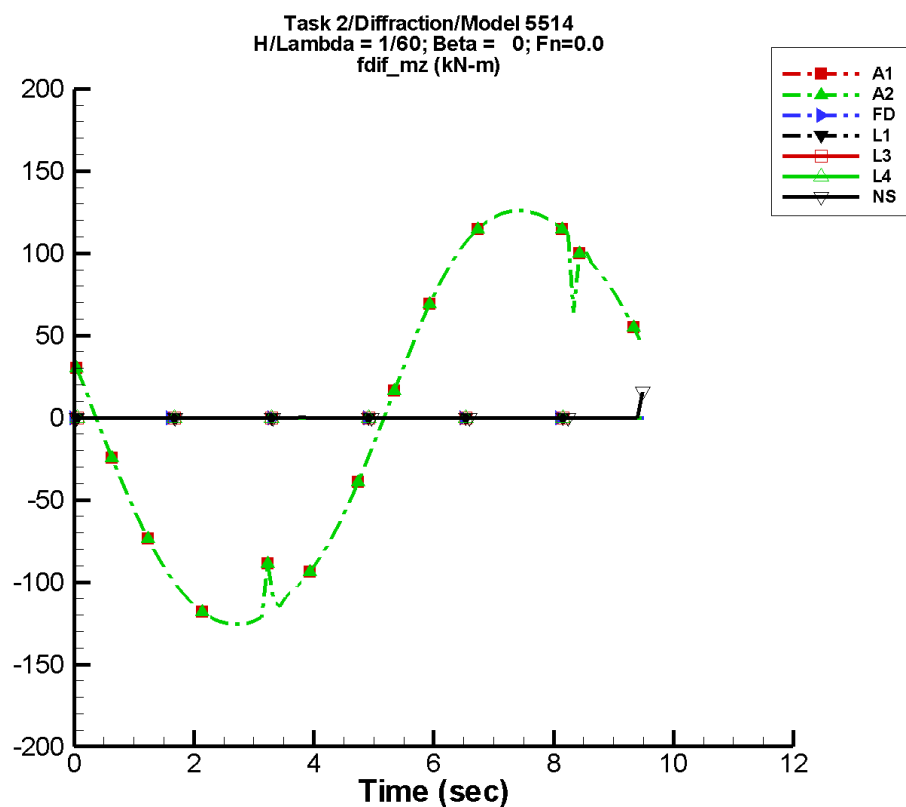
Table H-1919. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	1.23E+04	1.05E+06	32	1.45E+04	89
A2	1.23E+04	1.05E+06	32	1.45E+04	89
FD	1.28E+03	1.08E+06	115	4.93E+03	21
L1	4.86E+04	1.28E+06	66	2.53E+04	-54
L3	4.86E+04	1.28E+06	66	2.53E+04	-54
L4	-5.14E+04	7.19E+05	74	1.95E+05	164
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1920. Minimum and maximum of  $M_y^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.05E+06	1.06E+06	-1.01E+06	1.02E+06
A2	-1.05E+06	1.06E+06	-1.01E+06	1.02E+06
FD	-1.08E+06	1.08E+06	-1.05E+06	1.05E+06
L1	-1.23E+06	1.33E+06	-1.22E+06	1.31E+06
L3	-1.23E+06	1.33E+06	-1.22E+06	1.31E+06
L4	-1.10E+06	1.32E+06	-1.05E+06	1.06E+06
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-961. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1921. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

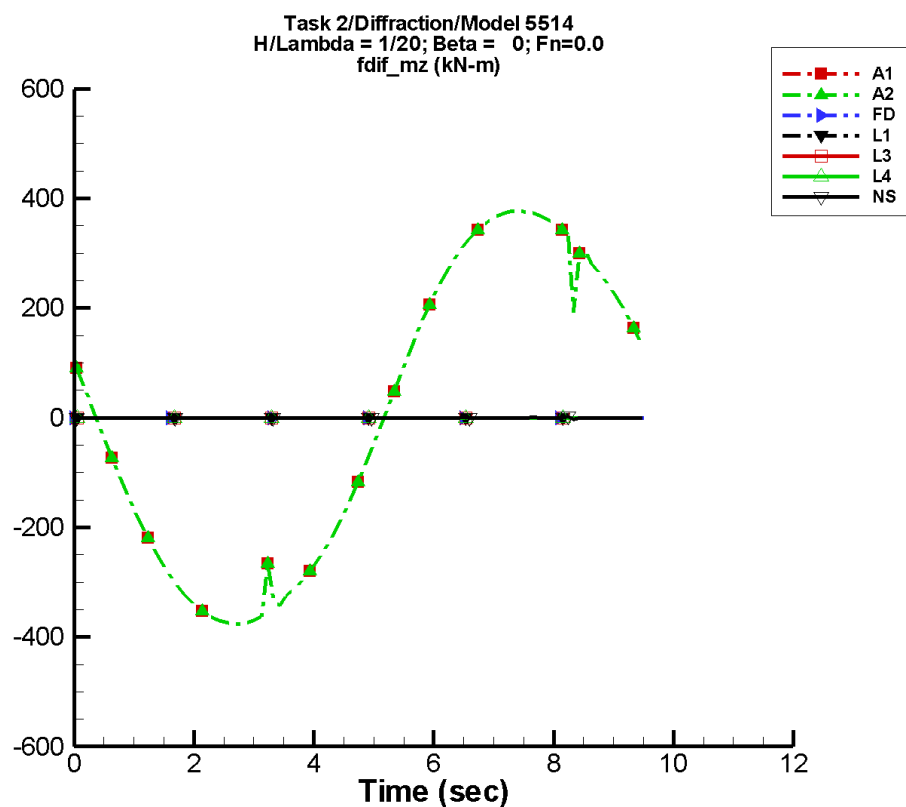
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.249	128.	161	0.368	59
A2	-0.249	128.	161	0.368	59
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	6.89E-03	2.35E-02	131	5.49E-02	160

Table H-1922. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-126.	126.	-124.	125.
A2	-126.	126.	-124.	125.
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-15.6	15.8	-0.333	0.453



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-962. Time history of  $M_z^{dif}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

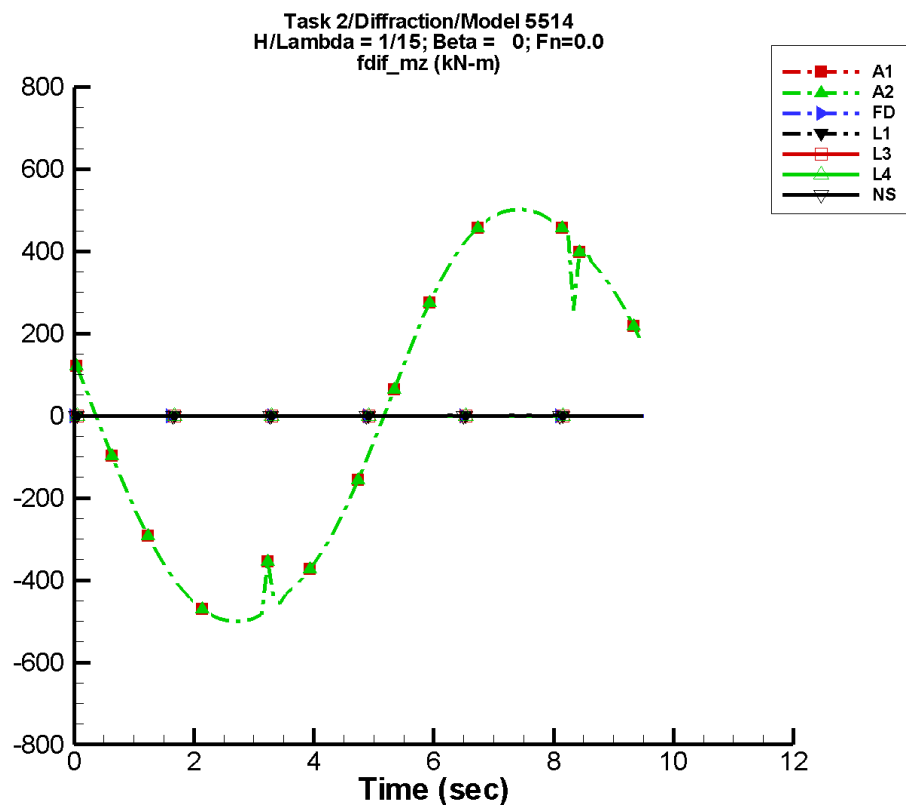
Table H-1923. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.746	384.	161	1.10	59
A2	-0.746	384.	161	1.10	59
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.76E-03	1.14E-02	-167	2.74E-02	-64

Table H-1924. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-376.	377.	-370.	375.
A2	-376.	377.	-370.	375.
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-2.67	2.76	-0.105	9.45E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-963. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

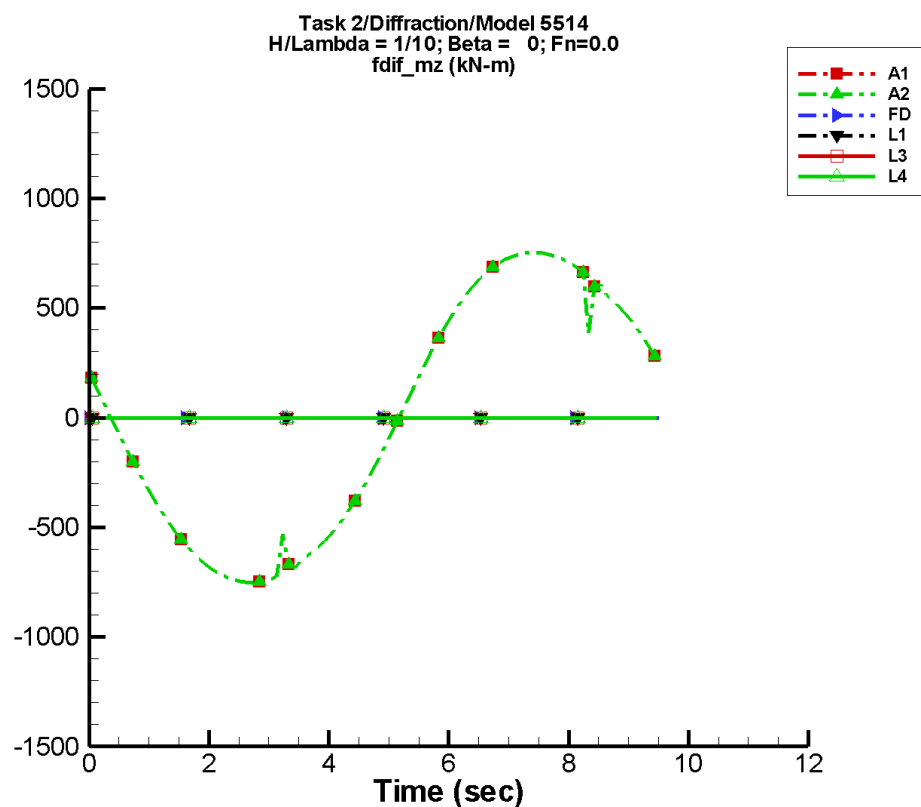
Table H-1925. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.993	511.	161	1.46	59
A2	-0.993	511.	161	1.46	59
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-7.72E-04	3.44E-02	136	5.12E-02	-127

Table H-1926. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-500.	502.	-493.	499.
A2	-500.	502.	-493.	499.
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-9.00	8.84	-0.283	0.160

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-964. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

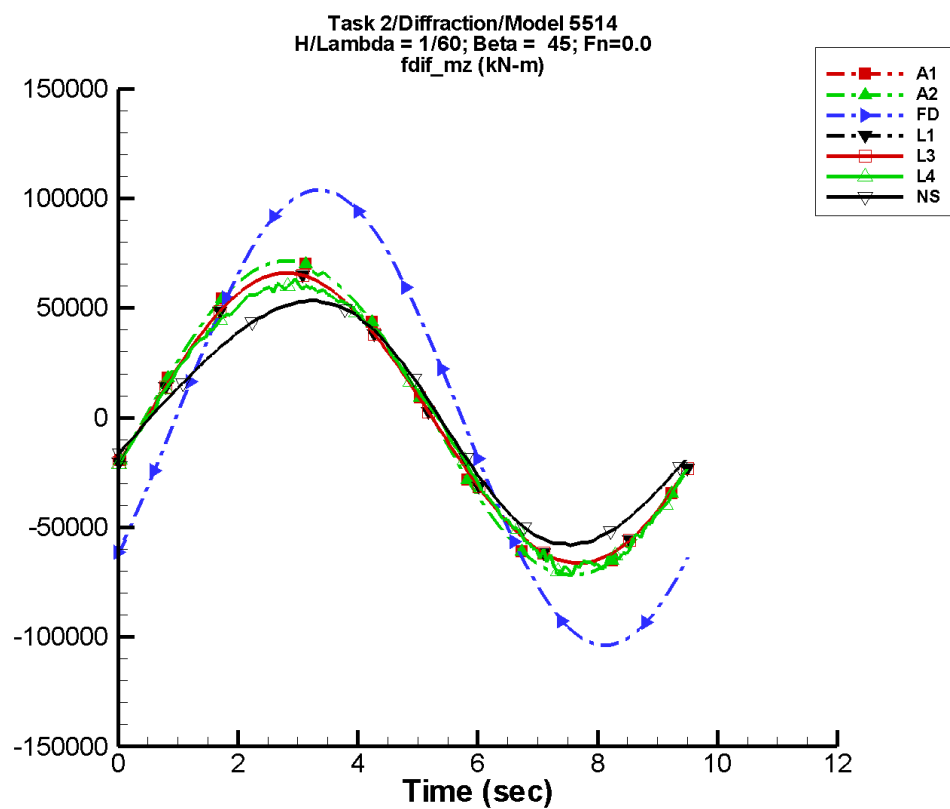
Table H-1927. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-1.49	768.	161	2.20	59
A2	-1.49	768.	161	2.20	59
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1928. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-752.	754.	-741.	750.
A2	-752.	754.	-741.	750.
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-965. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1929. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

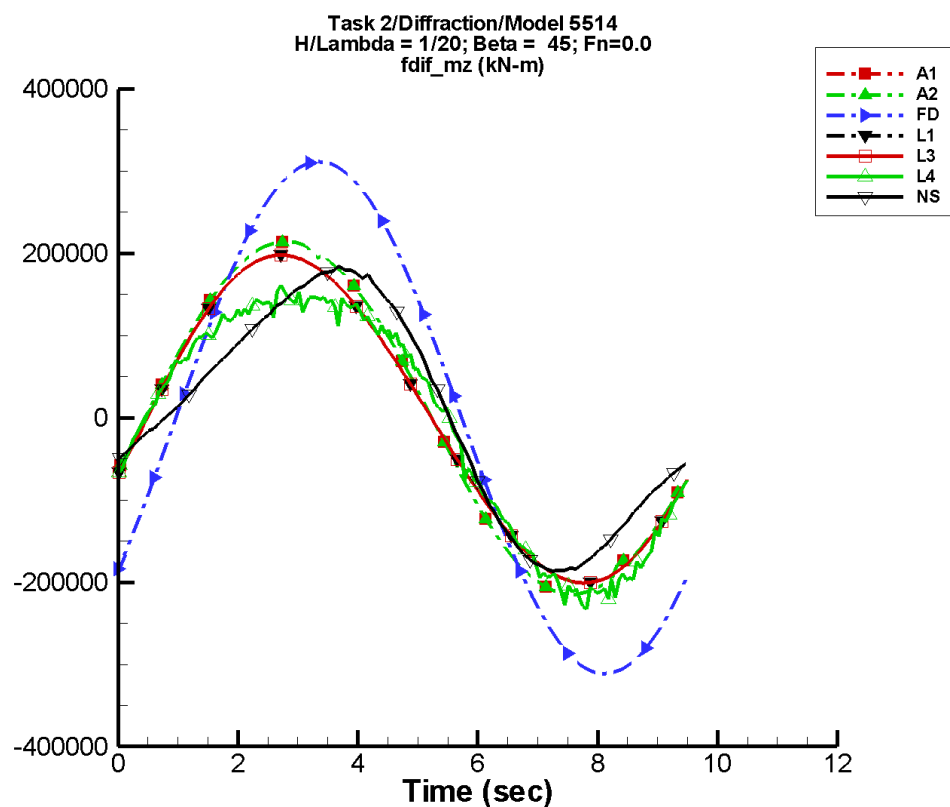
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-37.7	7.17E+04	-22	65.7	-67
A2	-37.7	7.17E+04	-22	65.7	-67
FD	-2.63	1.04E+05	-42	2.56	-53
L1	-230.	6.62E+04	-22	1.08E+03	-45
L3	-230.	6.62E+04	-22	1.08E+03	-45
L4	-1.48E+03	6.50E+04	-23	2.74E+03	33
NF	—	—	—	—	—
NS	-748.	5.50E+04	-22	4.75E+03	114

Table H-1930. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.18E+04	7.16E+04	-7.11E+04	7.06E+04
A2	-7.18E+04	7.16E+04	-7.11E+04	7.06E+04
FD	-1.04E+05	1.04E+05	-1.03E+05	1.03E+05
L1	-6.63E+04	6.60E+04	-6.61E+04	6.57E+04
L3	-6.63E+04	6.60E+04	-6.61E+04	6.57E+04
L4	-7.18E+04	6.35E+04	-6.86E+04	6.05E+04
NF	—	—	—	—
NS	-5.83E+04	5.35E+04	-5.72E+04	5.27E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-966. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

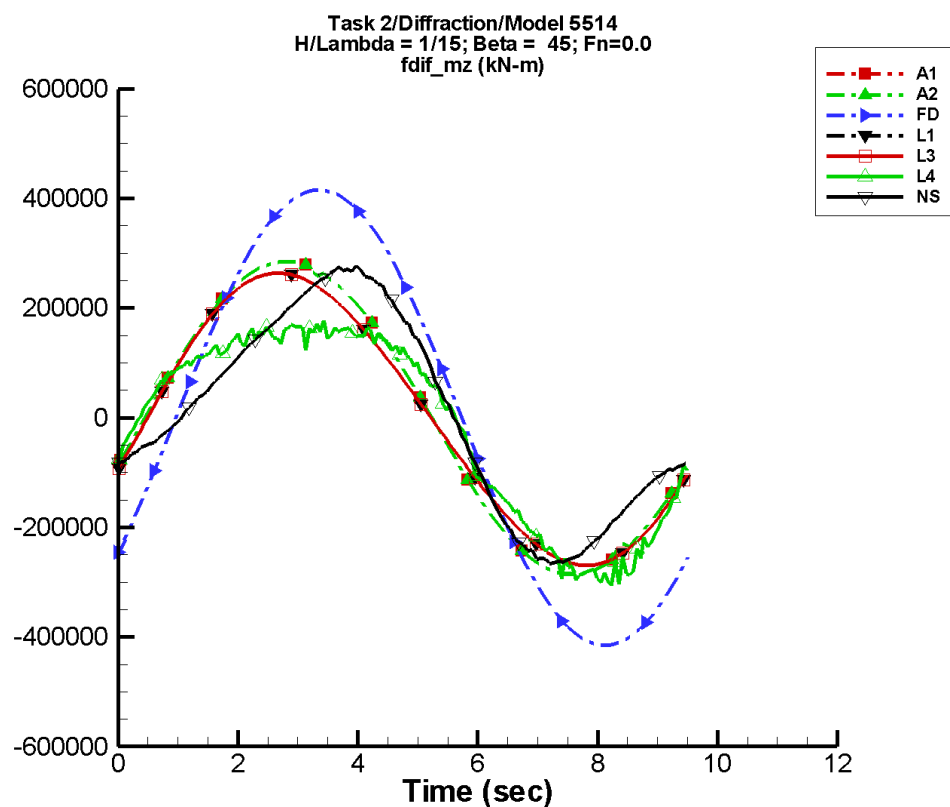
Table H-1931. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-113.	2.15E+05	-22	197.	-67
A2	-113.	2.15E+05	-22	197.	-67
FD	-7.86	3.11E+05	-42	7.67	-53
L1	-2.00E+03	1.98E+05	-22	9.58E+03	-45
L3	-2.00E+03	1.98E+05	-22	9.58E+03	-45
L4	-1.14E+04	1.84E+05	-26	2.60E+04	34
NF	—	—	—	—	—
NS	-27.1	1.69E+05	-28	3.80E+04	122

Table H-1932. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.15E+05	2.14E+05	-2.13E+05	2.11E+05
A2	-2.15E+05	2.14E+05	-2.13E+05	2.11E+05
FD	-3.11E+05	3.11E+05	-3.08E+05	3.08E+05
L1	-2.01E+05	1.98E+05	-2.00E+05	1.97E+05
L3	-2.01E+05	1.98E+05	-2.00E+05	1.97E+05
L4	-2.33E+05	1.61E+05	-2.17E+05	1.45E+05
NF	—	—	—	—
NS	-1.86E+05	1.84E+05	-1.84E+05	1.78E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-967. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

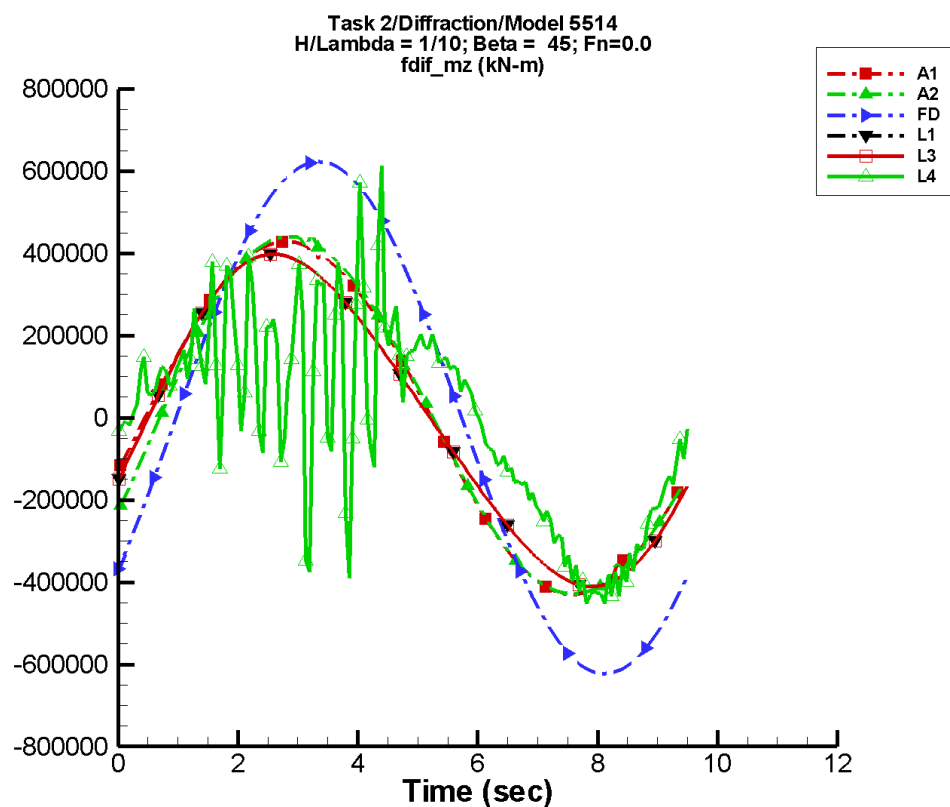
Table H-1933. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-150.	2.86E+05	-22	262.	-67
A2	-150.	2.86E+05	-22	262.	-67
FD	-10.5	4.15E+05	-42	10.2	-53
L1	-3.53E+03	2.65E+05	-22	1.70E+04	-45
L3	-3.53E+03	2.65E+05	-22	1.70E+04	-45
L4	-1.76E+04	2.28E+05	-28	5.29E+04	34
NF	—	—	—	—	—
NS	513.	2.38E+05	-33	6.42E+04	127

Table H-1934. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.86E+05	2.85E+05	-2.83E+05	2.81E+05
A2	-2.86E+05	2.85E+05	-2.83E+05	2.81E+05
FD	-4.15E+05	4.15E+05	-4.11E+05	4.11E+05
L1	-2.70E+05	2.64E+05	-2.68E+05	2.63E+05
L3	-2.70E+05	2.64E+05	-2.68E+05	2.63E+05
L4	-3.06E+05	1.77E+05	-2.89E+05	1.59E+05
NF	—	—	—	—
NS	-2.66E+05	2.78E+05	-2.61E+05	2.69E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-968. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

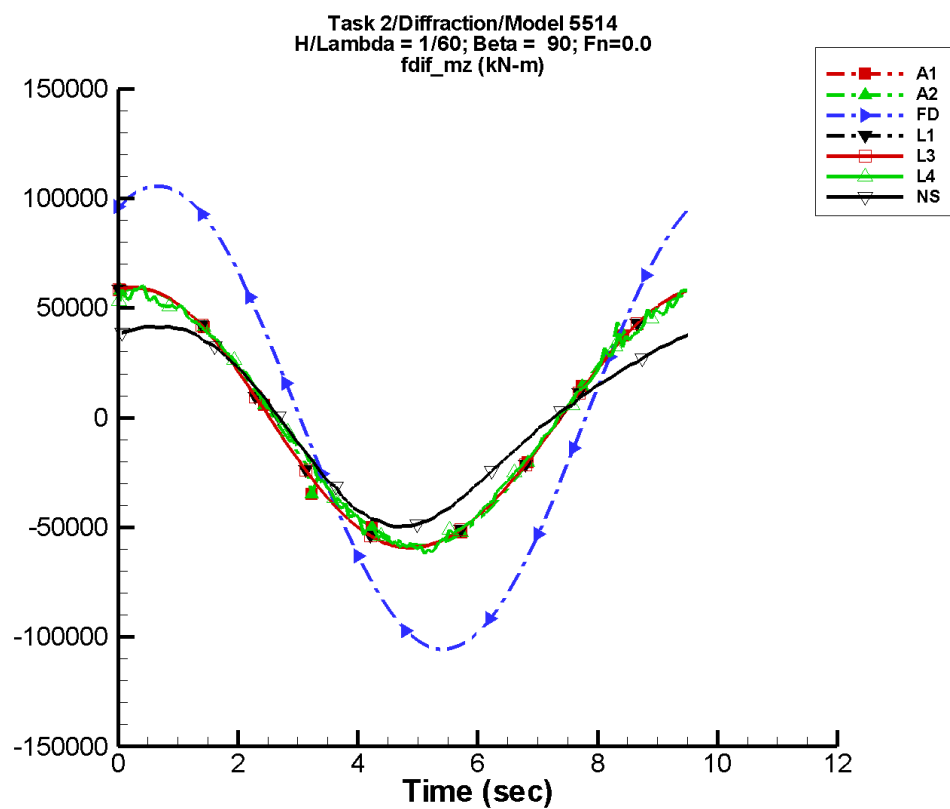
Table H-1935. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-226.	4.29E+05	-22	393.	-67
A2	-3.52E+03	4.30E+05	-20	1.02E+04	-133
FD	-15.7	6.23E+05	-42	15.3	-53
L1	-7.91E+03	3.97E+05	-22	3.82E+04	-45
L3	-7.91E+03	3.97E+05	-22	3.82E+04	-45
L4	-1.22E+04	2.47E+05	-34	1.36E+05	27
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1936. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.30E+05	4.28E+05	-4.25E+05	4.23E+05
A2	-4.29E+05	4.47E+05	-4.24E+05	4.35E+05
FD	-6.23E+05	6.23E+05	-6.16E+05	6.16E+05
L1	-4.10E+05	3.97E+05	-4.08E+05	3.96E+05
L3	-4.10E+05	3.97E+05	-4.08E+05	3.96E+05
L4	-4.53E+05	6.13E+05	-4.26E+05	2.36E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-969. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1937. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

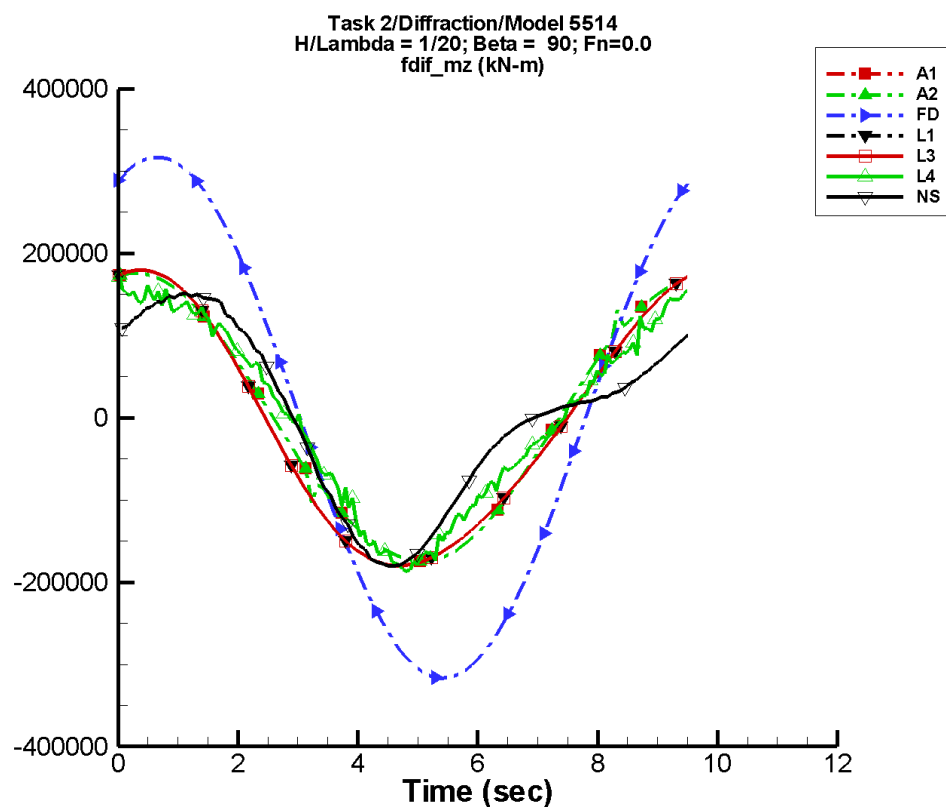
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	2.53	5.86E+04	77	147.	52
A2	2.53	5.86E+04	77	147.	52
FD	-1.87	1.06E+05	60	2.60	-126
L1	-893.	5.92E+04	80	1.77E+03	10
L3	-893.	5.92E+04	80	1.77E+03	10
L4	-71.5	5.73E+04	78	1.79E+03	-80
NF	—	—	—	—	—
NS	-747.	4.39E+04	81	6.73E+03	-49

Table H-1938. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.83E+04	5.88E+04	-5.76E+04	5.86E+04
A2	-5.83E+04	5.88E+04	-5.76E+04	5.86E+04
FD	-1.06E+05	1.06E+05	-1.04E+05	1.04E+05
L1	-5.93E+04	5.93E+04	-5.91E+04	5.90E+04
L3	-5.93E+04	5.93E+04	-5.91E+04	5.90E+04
L4	-6.22E+04	6.02E+04	-5.97E+04	5.74E+04
NF	—	—	—	—
NS	-4.98E+04	4.17E+04	-4.89E+04	4.12E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-970. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

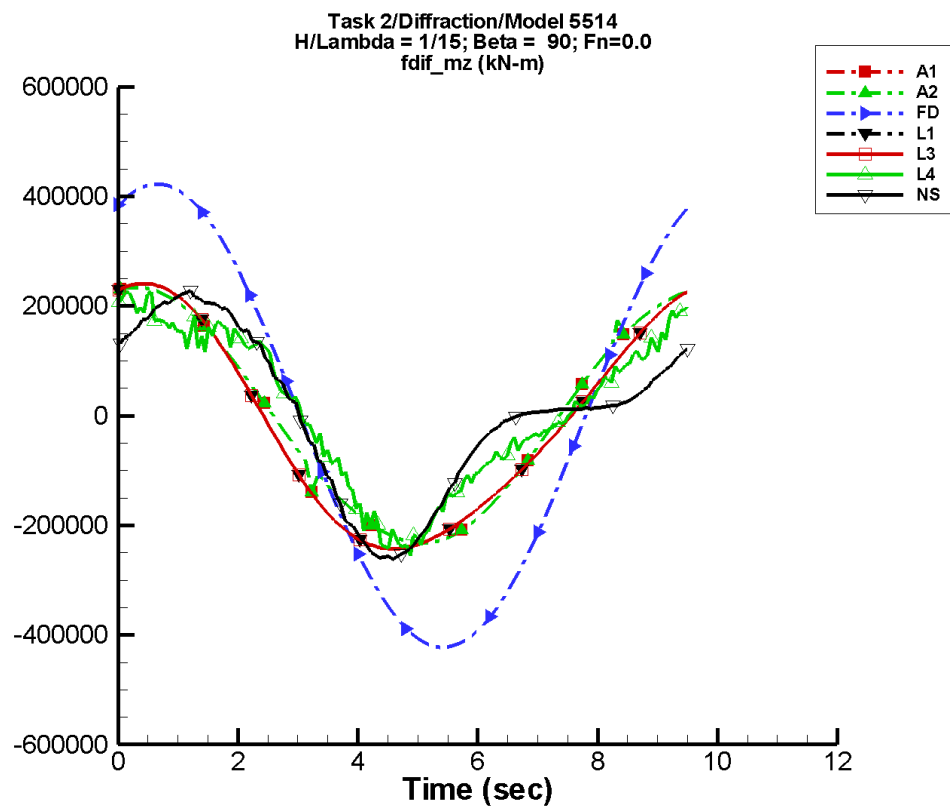
Table H-1939. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.57	1.75E+05	77	439.	52
A2	7.57	1.75E+05	77	439.	52
FD	-5.65	3.17E+05	60	7.79	-126
L1	-7.82E+03	1.78E+05	80	1.59E+04	9
L3	-7.82E+03	1.78E+05	80	1.59E+04	9
L4	3.77E+03	1.53E+05	75	1.73E+04	-71
NF	—	—	—	—	—
NS	2.69E+03	1.35E+05	77	5.30E+04	-45

Table H-1940. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.74E+05	1.76E+05	-1.72E+05	1.75E+05
A2	-1.74E+05	1.76E+05	-1.72E+05	1.75E+05
FD	-3.17E+05	3.17E+05	-3.13E+05	3.13E+05
L1	-1.80E+05	1.80E+05	-1.80E+05	1.79E+05
L3	-1.80E+05	1.80E+05	-1.80E+05	1.79E+05
L4	-1.87E+05	1.71E+05	-1.79E+05	1.63E+05
NF	—	—	—	—
NS	-1.81E+05	1.51E+05	-1.76E+05	1.48E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-971. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

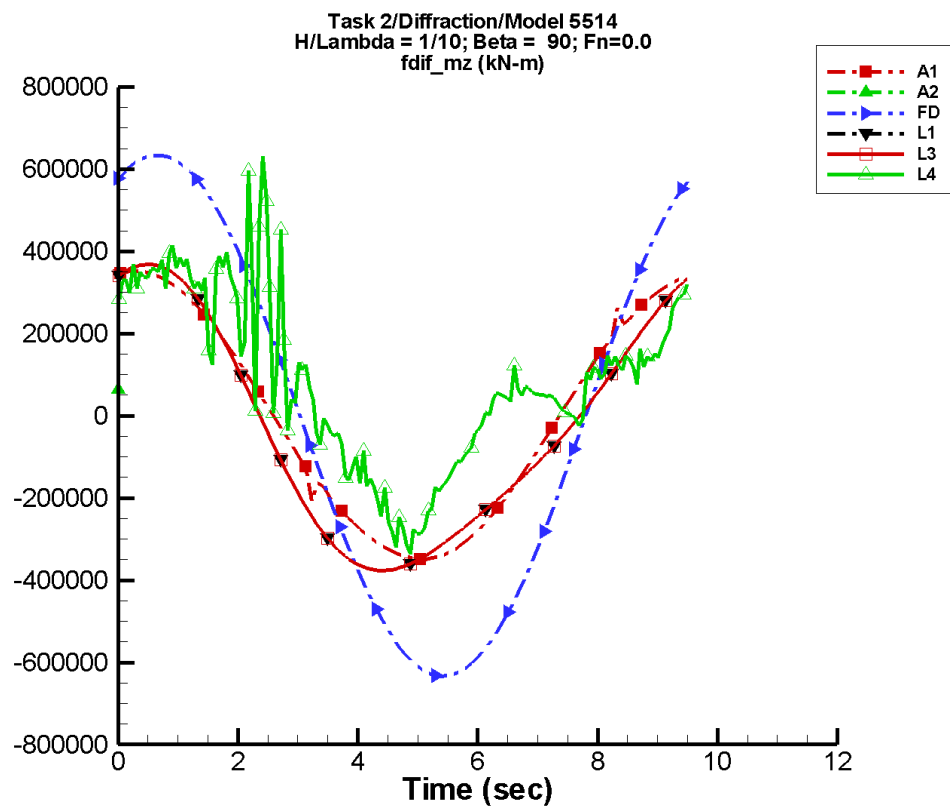
Table H-1941. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	10.1	2.33E+05	77	585.	52
A2	10.1	2.33E+05	77	585.	52
FD	-7.49	4.22E+05	60	10.4	-126
L1	-1.39E+04	2.37E+05	80	2.83E+04	9
L3	-1.39E+04	2.37E+05	80	2.83E+04	9
L4	1.16E+04	1.87E+05	71	3.54E+04	-71
NF	—	—	—	—	—
NS	5.59E+03	1.78E+05	74	8.83E+04	-43

Table H-1942. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.32E+05	2.34E+05	-2.30E+05	2.33E+05
A2	-2.32E+05	2.34E+05	-2.30E+05	2.33E+05
FD	-4.22E+05	4.22E+05	-4.18E+05	4.18E+05
L1	-2.43E+05	2.41E+05	-2.42E+05	2.40E+05
L3	-2.43E+05	2.41E+05	-2.42E+05	2.40E+05
L4	-2.56E+05	2.28E+05	-2.34E+05	2.12E+05
NF	—	—	—	—
NS	-2.62E+05	2.28E+05	-2.56E+05	2.17E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-972. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

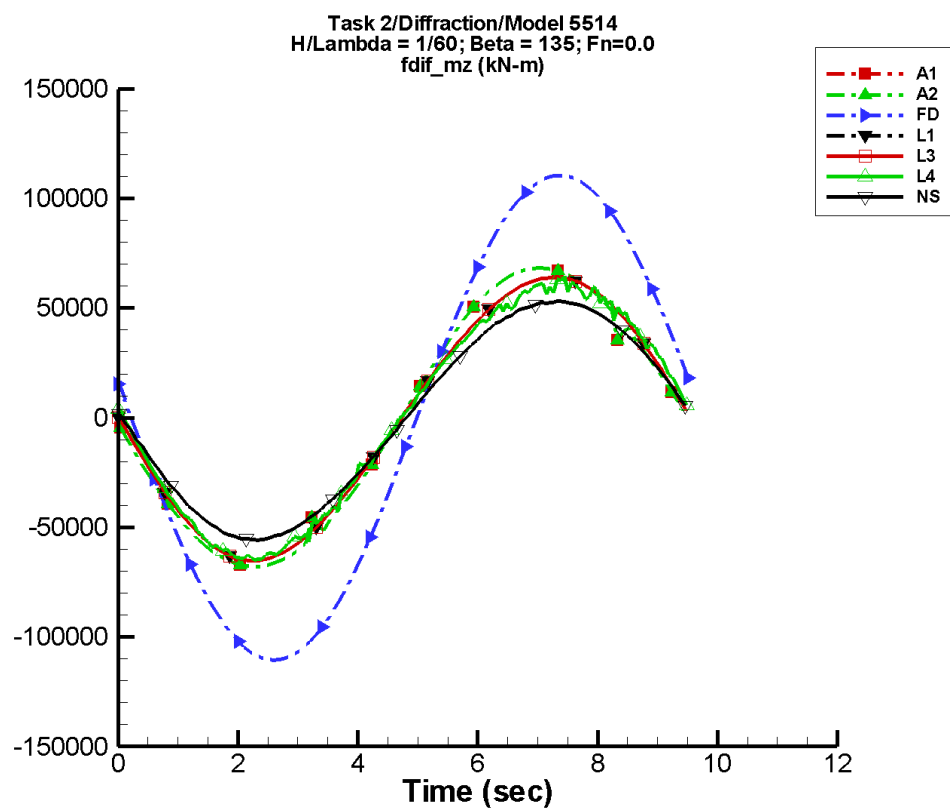
Table H-1943. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	15.1	3.51E+05	77	878.	52
A2	-1.73E+05	1.12E+06	80	3.45E+05	-176
FD	-11.3	6.34E+05	60	15.6	-126
L1	-3.11E+04	3.55E+05	80	6.37E+04	9
L3	-3.11E+04	3.55E+05	80	6.37E+04	9
L4	8.56E+04	2.44E+05	64	8.79E+04	-59
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1944. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.49E+05	3.52E+05	-3.45E+05	3.50E+05
A2	6.29E+04	8.94E+04	6.29E+04	8.94E+04
FD	-6.34E+05	6.34E+05	-6.27E+05	6.27E+05
L1	-3.77E+05	3.68E+05	-3.75E+05	3.66E+05
L3	-3.77E+05	3.68E+05	-3.75E+05	3.66E+05
L4	-3.37E+05	6.31E+05	-2.94E+05	3.76E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-973. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1945. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

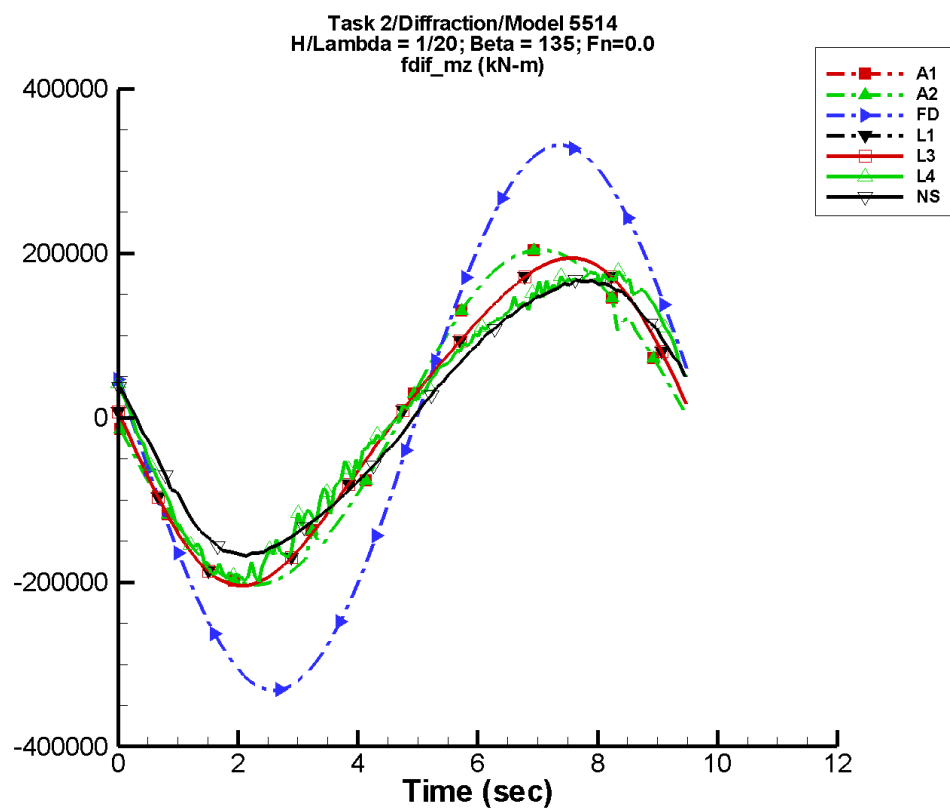
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	13.4	6.79E+04	178	54.6	180
A2	13.4	6.79E+04	178	54.6	180
FD	3.68	1.11E+05	166	3.31	104
L1	205.	6.44E+04	177	2.91E+03	156
L3	205.	6.44E+04	177	2.91E+03	156
L4	410.	6.22E+04	175	4.47E+03	143
NF	—	—	—	—	—
NS	-374.	5.43E+04	178	2.64E+03	156

Table H-1946. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-6.79E+04	6.83E+04	-6.73E+04	6.75E+04
A2	-6.79E+04	6.83E+04	-6.73E+04	6.75E+04
FD	-1.11E+05	1.11E+05	-1.09E+05	1.09E+05
L1	-6.53E+04	6.40E+04	-6.51E+04	6.37E+04
L3	-6.53E+04	6.40E+04	-6.51E+04	6.37E+04
L4	-6.50E+04	6.45E+04	-6.40E+04	6.06E+04
NF	—	—	—	—
NS	-5.57E+04	5.33E+04	-5.56E+04	5.24E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-974. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

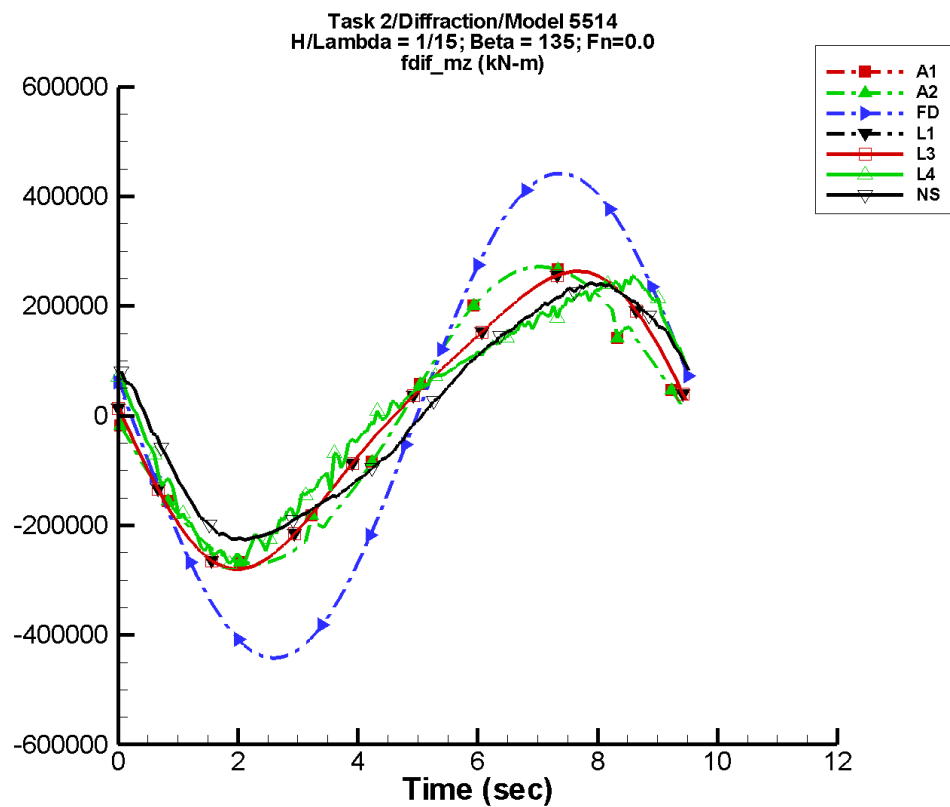
Table H-1947. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	40.0	2.03E+05	178	163.	180
A2	40.0	2.03E+05	178	163.	180
FD	11.1	3.32E+05	166	9.87	104
L1	1.82E+03	1.93E+05	177	2.63E+04	156
L3	1.82E+03	1.93E+05	177	2.63E+04	156
L4	7.24E+03	1.74E+05	173	3.94E+04	145
NF	—	—	—	—	—
NS	3.77E+03	1.64E+05	171	2.25E+04	154

Table H-1948. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.03E+05	2.04E+05	-2.01E+05	2.02E+05
A2	-2.03E+05	2.04E+05	-2.01E+05	2.02E+05
FD	-3.32E+05	3.32E+05	-3.28E+05	3.28E+05
L1	-2.05E+05	1.94E+05	-2.04E+05	1.93E+05
L3	-2.05E+05	1.94E+05	-2.04E+05	1.93E+05
L4	-1.99E+05	1.78E+05	-1.93E+05	1.72E+05
NF	—	—	—	—
NS	-1.68E+05	1.68E+05	-1.67E+05	1.65E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-975. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

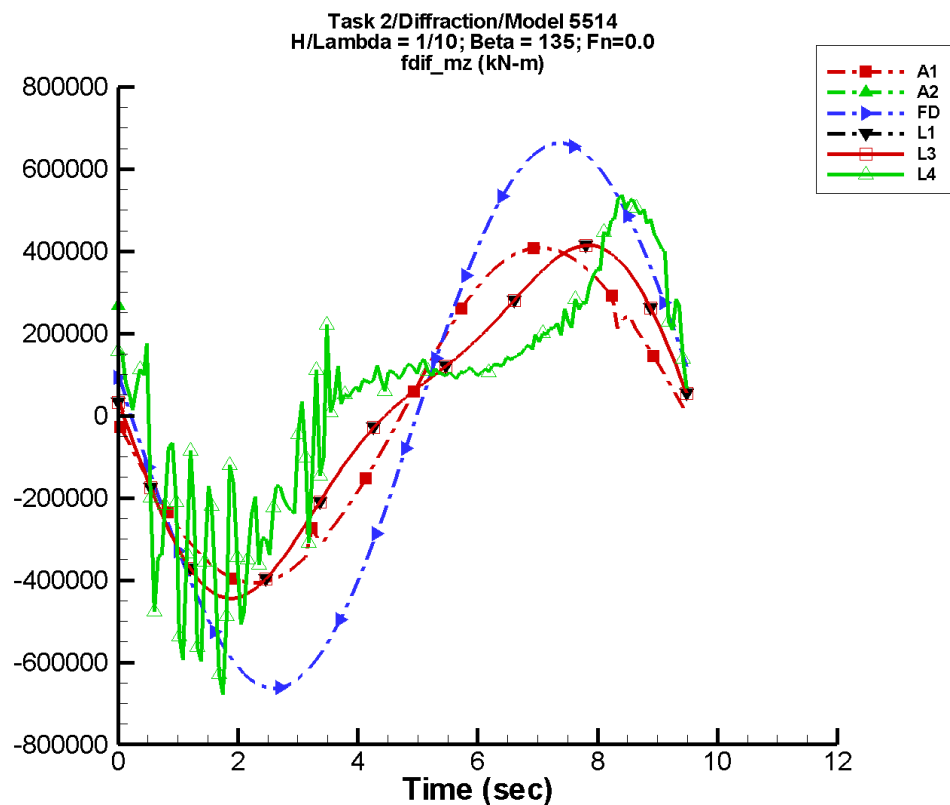
Table H-1949. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	53.3	2.71E+05	178	218.	180
A2	53.3	2.71E+05	178	218.	180
FD	14.7	4.42E+05	166	13.2	104
L1	3.23E+03	2.58E+05	177	4.67E+04	156
L3	3.23E+03	2.58E+05	177	4.67E+04	156
L4	1.54E+04	2.19E+05	172	7.34E+04	141
NF	—	—	—	—	—
NS	7.91E+03	2.26E+05	166	3.71E+04	150

Table H-1950. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.71E+05	2.72E+05	-2.68E+05	2.69E+05
A2	-2.71E+05	2.72E+05	-2.68E+05	2.69E+05
FD	-4.42E+05	4.42E+05	-4.37E+05	4.37E+05
L1	-2.80E+05	2.63E+05	-2.79E+05	2.62E+05
L3	-2.80E+05	2.63E+05	-2.79E+05	2.62E+05
L4	-2.76E+05	2.56E+05	-2.58E+05	2.43E+05
NF	—	—	—	—
NS	-2.26E+05	2.42E+05	-2.25E+05	2.38E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-976. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

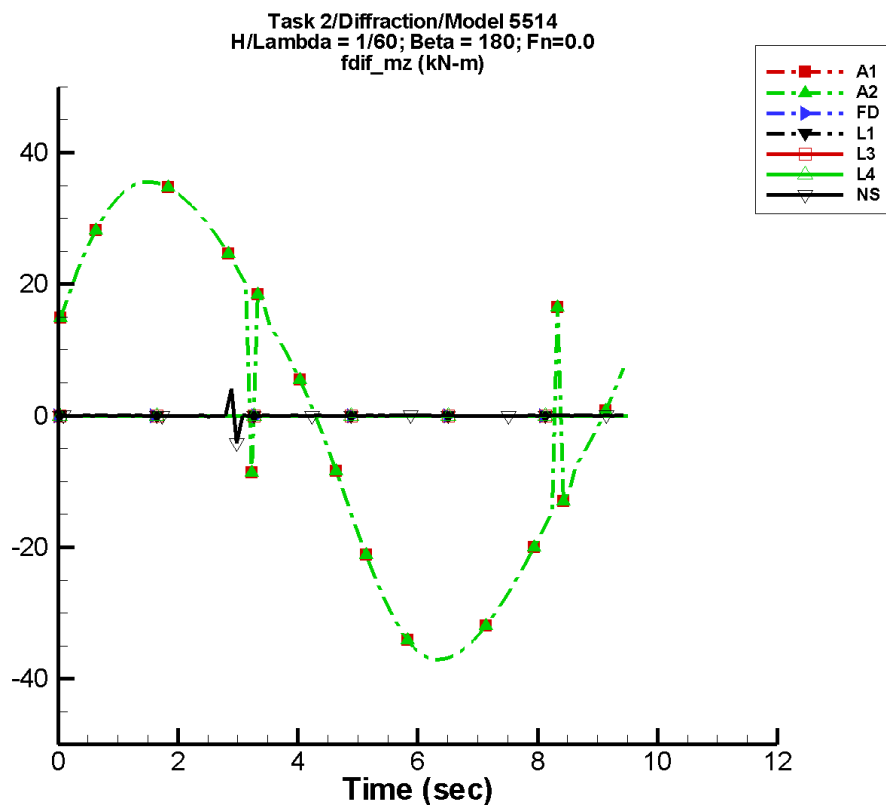
Table H-1951. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	80.0	4.07E+05	178	327.	180
A2	1.32E+06	5.79E+06	-139	3.28E+06	63
FD	22.2	6.63E+05	166	19.7	104
L1	7.26E+03	3.87E+05	177	1.05E+05	156
L3	7.26E+03	3.87E+05	177	1.05E+05	156
L4	4.89E+04	2.83E+05	174	2.06E+05	147
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1952. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.06E+05	4.09E+05	-4.03E+05	4.04E+05
A2	2.54E+05	2.68E+05	2.54E+05	2.68E+05
FD	-6.63E+05	6.63E+05	-6.56E+05	6.56E+05
L1	-4.45E+05	4.14E+05	-4.42E+05	4.12E+05
L3	-4.45E+05	4.14E+05	-4.42E+05	4.12E+05
L4	-6.78E+05	5.37E+05	-4.06E+05	5.13E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-977. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1953. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

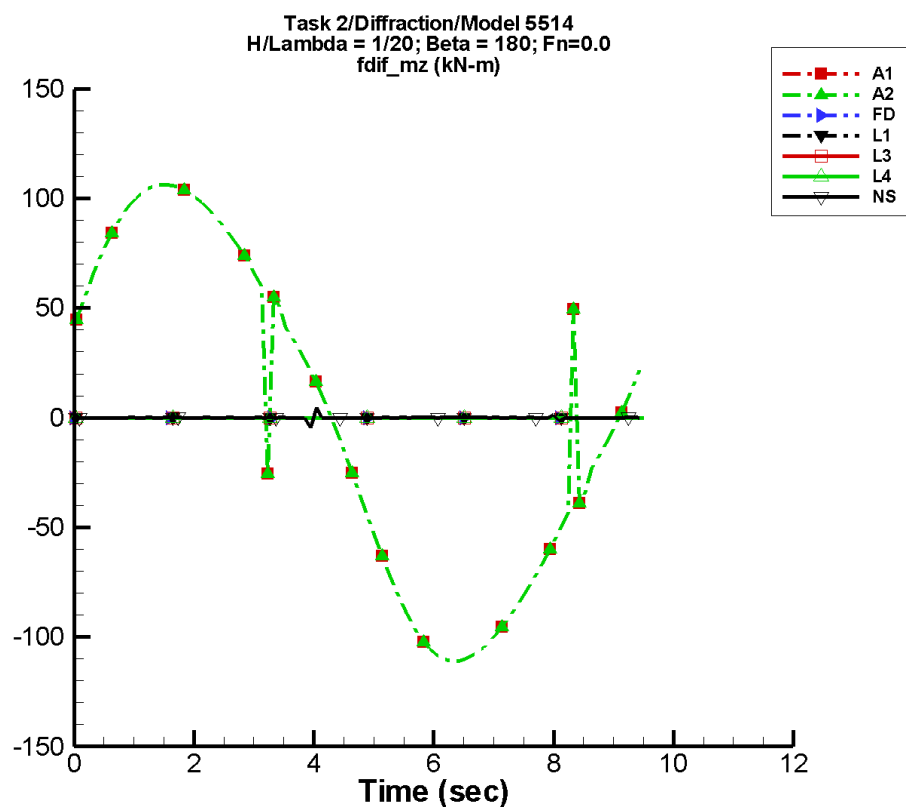
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.133	35.2	19	0.171	31
A2	-0.133	35.2	19	0.171	31
FD	-4.08E-07	1.24E-02	18	3.84E-07	-95
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-1.65E-03	1.49E-02	-166	1.94E-03	-56

Table H-1954. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-37.1	38.0	-36.6	37.9
A2	-37.1	38.0	-36.6	37.9
FD	-1.23E-02	1.24E-02	-1.22E-02	1.22E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.18	4.14	-0.112	8.39E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-978. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

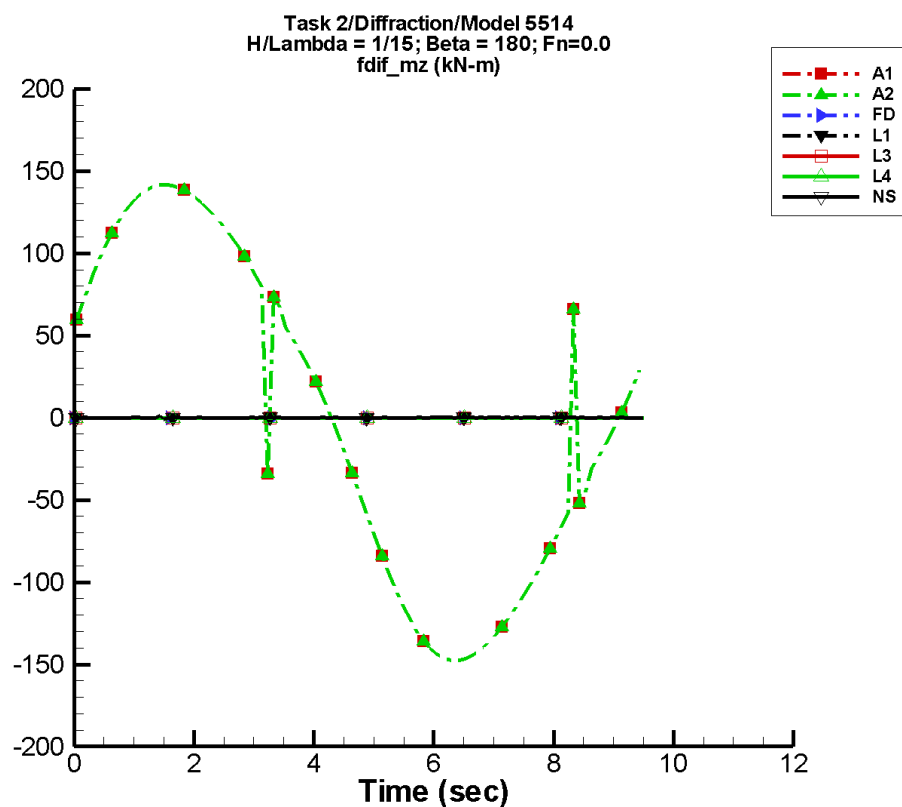
Table H-1955. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.397	105.	19	0.513	31
A2	-0.397	105.	19	0.513	31
FD	-1.22E-06	3.71E-02	18	1.15E-06	-95
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.25E-03	6.13E-02	-150	4.46E-02	15

Table H-1956. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-111.	114.	-110.	114.
A2	-111.	114.	-110.	114.
FD	-3.70E-02	3.71E-02	-3.66E-02	3.66E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-4.68	4.77	-0.135	0.151

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-979. Time history of  $M_z^{dif}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

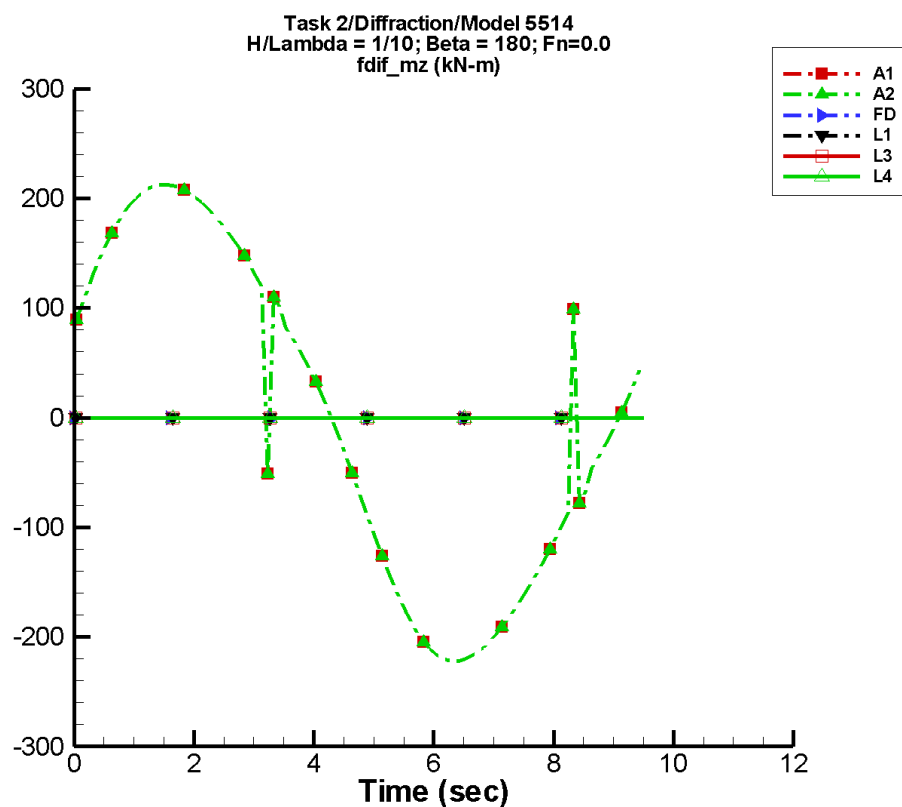
Table H-1957. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.528	140.	19	0.683	31
A2	-0.528	140.	19	0.683	31
FD	-1.63E-06	4.94E-02	18	1.54E-06	-95
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.86E-02	8.45E-02	173	7.62E-02	-117

Table H-1958. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-148.	152.	-146.	151.
A2	-148.	152.	-146.	151.
FD	-4.94E-02	4.94E-02	-4.89E-02	4.89E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.994	1.04	-0.108	0.191

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-980. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

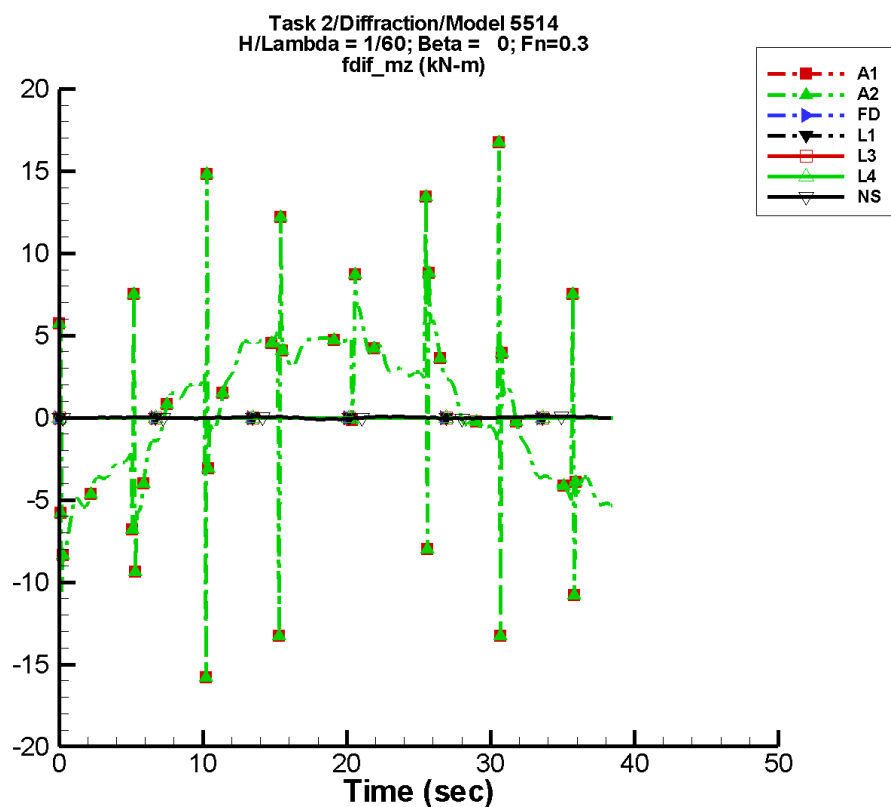
Table H-1959. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-0.793	210.	19	1.03	31
A2	-0.793	210.	19	1.03	31
FD	-2.45E-06	7.41E-02	18	2.31E-06	-95
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1960. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.0$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-222.	228.	-219.	227.
A2	-222.	228.	-219.	227.
FD	-7.41E-02	7.41E-02	-7.33E-02	7.33E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-981. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1961. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

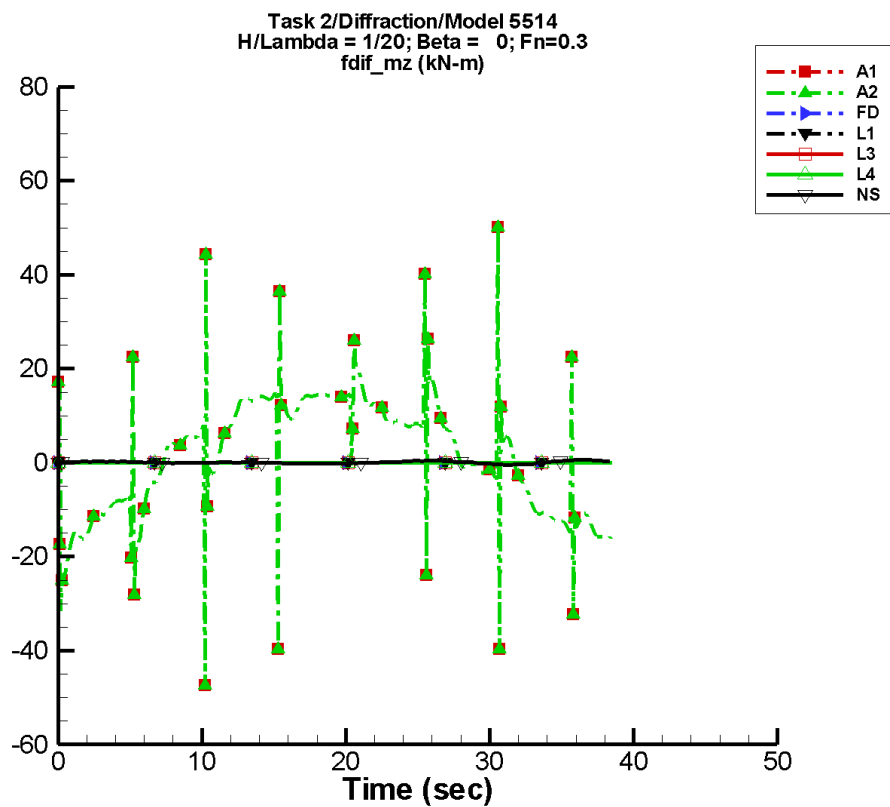
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	5.43E-02	5.15	-90	0.677	-127
A2	5.43E-02	5.15	-90	0.677	-127
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.55E-03	1.02E-02	140	1.89E-02	-135

Table H-1962. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-15.8	16.7	-7.72	5.80
A2	-15.8	16.7	-7.72	5.80
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-8.80E-02	8.53E-02	-6.91E-02	6.96E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-982. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

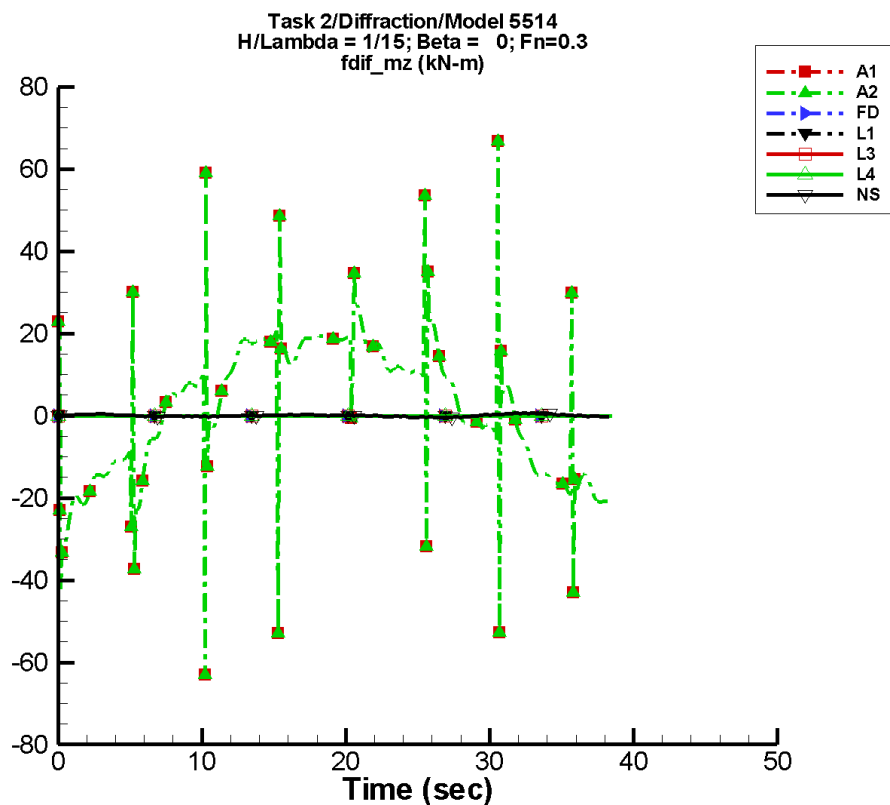
Table H-1963. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.162	15.4	-90	2.02	-127
A2	0.162	15.4	-90	2.02	-127
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	3.61E-02	6.87E-02	154	2.81E-02	22

Table H-1964. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-47.3	50.1	-23.1	17.3
A2	-47.3	50.1	-23.1	17.3
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.547	0.616	-0.410	0.517

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-983. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

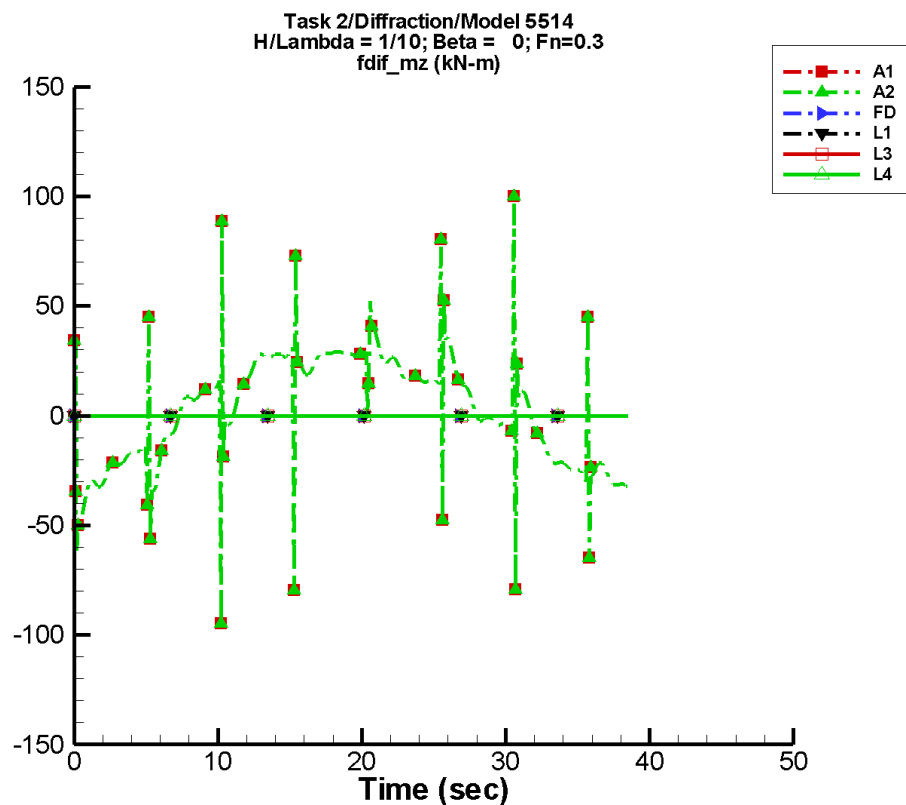
Table H-1965. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.216	20.5	-90	2.69	-127
A2	0.216	20.5	-90	2.69	-127
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	1.55E-02	6.56E-02	105	0.165	167

Table H-1966. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-63.0	66.7	-30.8	23.1
A2	-63.0	66.7	-30.8	23.1
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.507	0.625	-0.385	0.534

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from FREDYN, LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-984. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

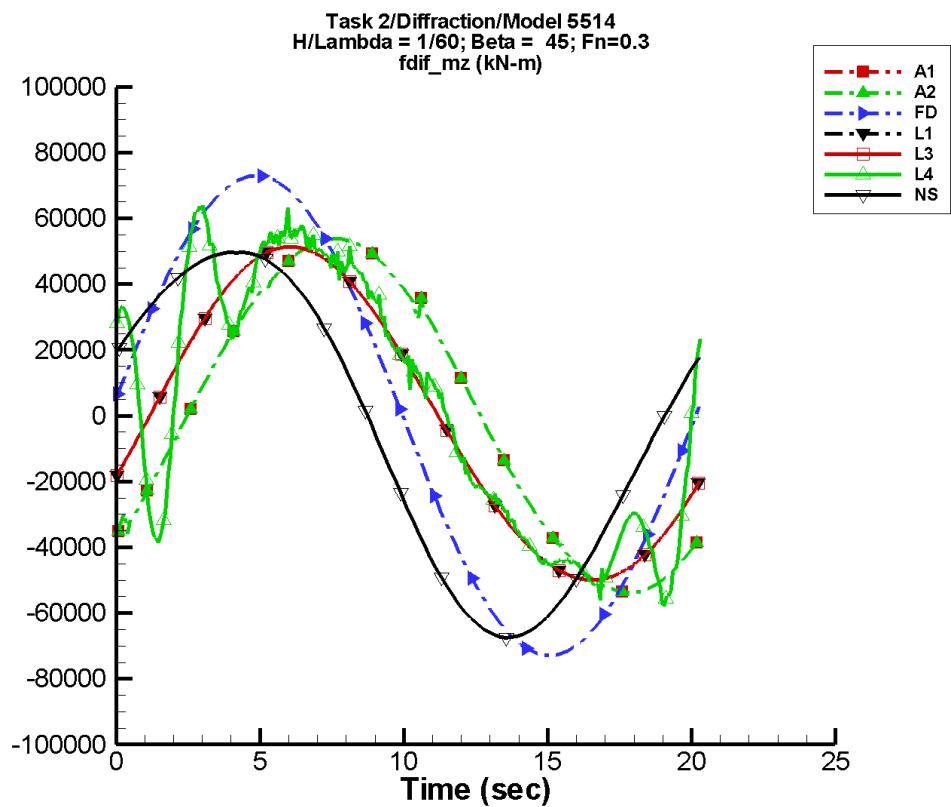
Table H-1967. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.325	30.8	-90	4.05	-127
A2	0.325	30.8	-90	4.05	-127
FD	—	—	—	—	—
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1968. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 0^\circ$ ,  $F_n = 0.3$ , and period = 38.55 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-94.6	100.	-46.2	34.7
A2	-94.6	100.	-46.2	34.7
FD	—	—	—	—
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-985. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1969. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

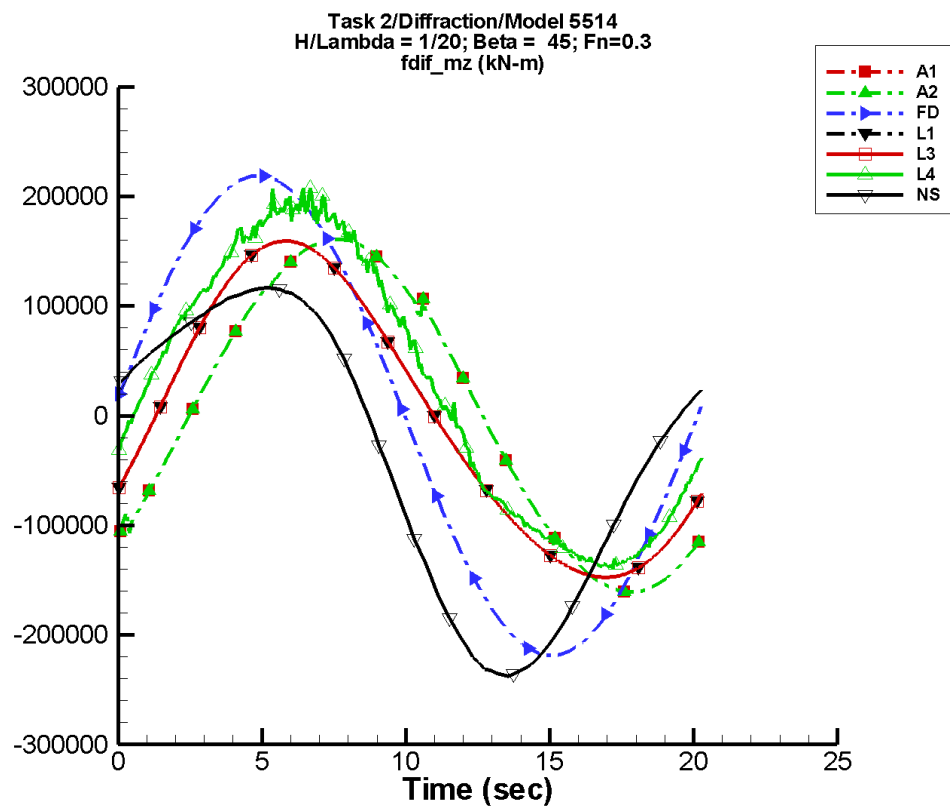
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-3.78	5.35E+04	-52	90.4	-104
A2	-3.78	5.35E+04	-52	90.4	-104
FD	-52.7	7.29E+04	-8	112.	-44
L1	-297.	5.06E+04	-23	1.54E+03	-86
L3	-298.	5.06E+04	-23	1.54E+03	-86
L4	2.85E+03	4.98E+04	-21	1.27E+03	156
NF	—	—	—	—	—
NS	-5.22E+03	5.84E+04	23	4.83E+03	177

Table H-1970. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.38E+04	5.38E+04	-5.36E+04	5.36E+04
A2	-5.38E+04	5.38E+04	-5.36E+04	5.36E+04
FD	-7.29E+04	7.29E+04	-7.27E+04	7.28E+04
L1	-5.00E+04	5.14E+04	-4.99E+04	5.13E+04
L3	-4.99E+04	5.14E+04	-4.99E+04	5.13E+04
L4	-5.79E+04	6.43E+04	-5.44E+04	6.24E+04
NF	—	—	—	—
NS	-6.74E+04	4.98E+04	-6.67E+04	4.94E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-986. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

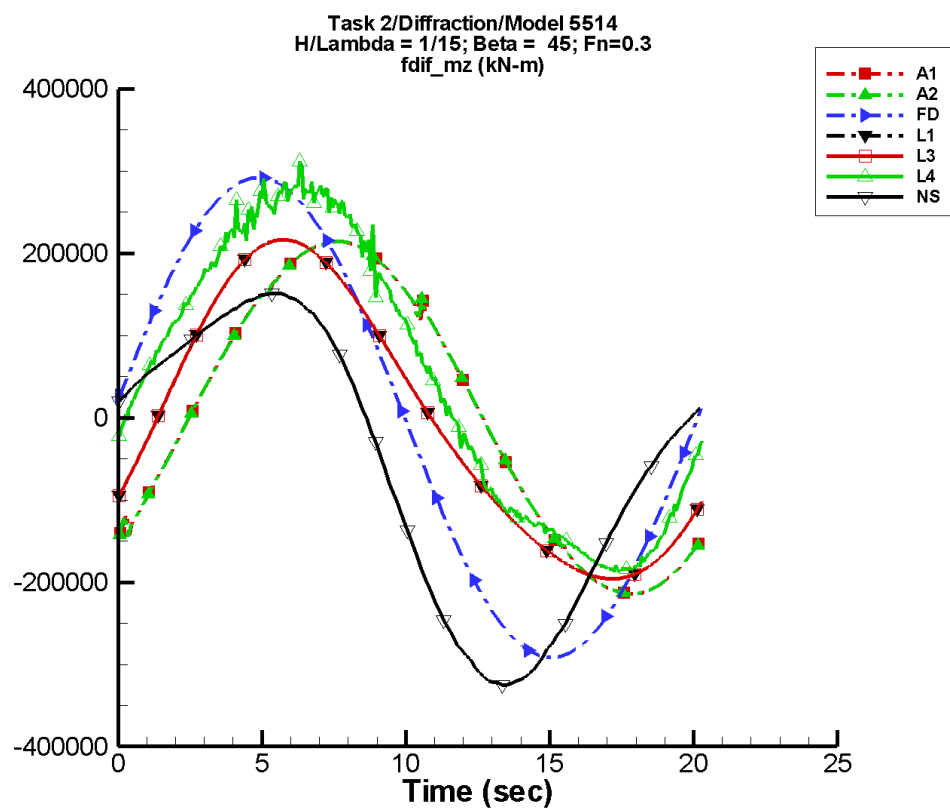
Table H–1971. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-11.3	1.60E+05	-52	271.	-104
A2	-11.3	1.60E+05	-52	271.	-104
FD	-158.	2.19E+05	-8	335.	-44
L1	-2.70E+03	1.52E+05	-23	1.40E+04	-86
L3	-2.70E+03	1.52E+05	-23	1.40E+04	-86
L4	2.36E+04	1.64E+05	-21	4.28E+03	-113
NF	—	—	—	—	—
NS	-3.87E+04	1.70E+05	21	3.38E+04	176

Table H–1972. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.61E+05	1.61E+05	-1.60E+05	1.60E+05
A2	-1.61E+05	1.61E+05	-1.60E+05	1.60E+05
FD	-2.19E+05	2.19E+05	-2.18E+05	2.18E+05
L1	-1.47E+05	1.59E+05	-1.47E+05	1.59E+05
L3	-1.47E+05	1.59E+05	-1.47E+05	1.59E+05
L4	-1.39E+05	2.08E+05	-1.37E+05	1.95E+05
NF	—	—	—	—
NS	-2.38E+05	1.16E+05	-2.34E+05	1.16E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-987. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

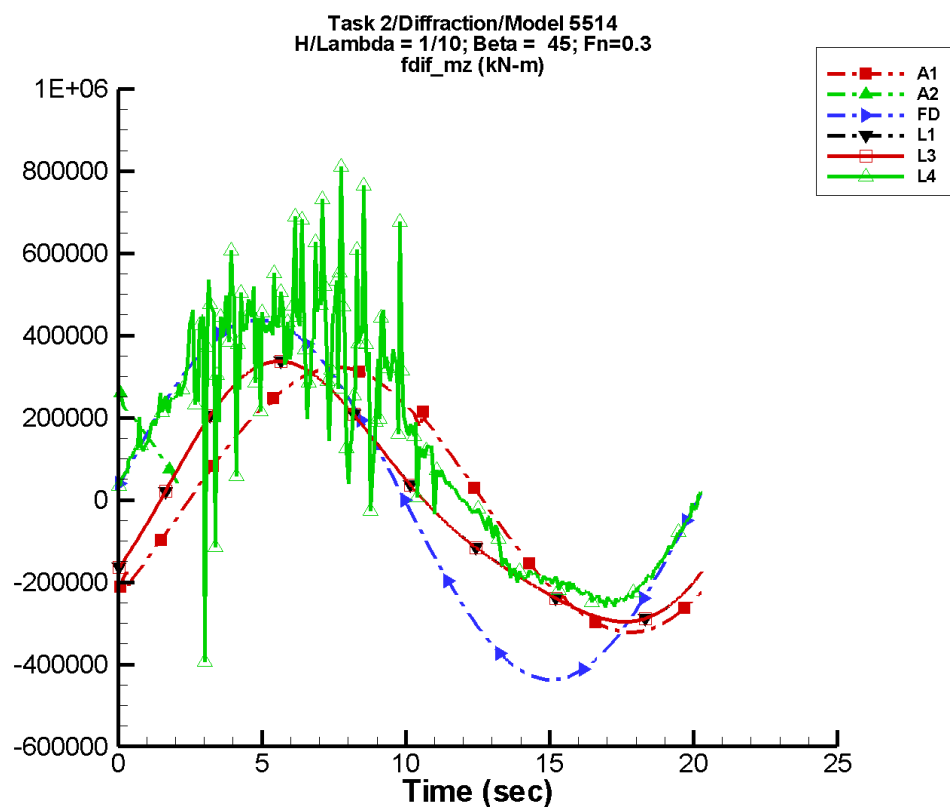
Table H-1973. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-15.0	2.13E+05	-52	360.	-104
A2	393.	2.13E+05	-49	626.	-35
FD	-211.	2.92E+05	-8	447.	-44
L1	-4.80E+03	2.03E+05	-23	2.50E+04	-86
L3	-4.80E+03	2.03E+05	-23	2.50E+04	-86
L4	4.39E+04	2.29E+05	-21	6.36E+03	-99
NF	—	—	—	—	—
NS	-6.08E+04	2.23E+05	21	5.09E+04	-178

Table H-1974. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.14E+05	2.14E+05	-2.14E+05	2.14E+05
A2	-2.14E+05	2.14E+05	-2.14E+05	2.14E+05
FD	-2.92E+05	2.92E+05	-2.91E+05	2.91E+05
L1	-1.96E+05	2.16E+05	-1.96E+05	2.16E+05
L3	-1.96E+05	2.16E+05	-1.96E+05	2.16E+05
L4	-1.87E+05	3.16E+05	-1.84E+05	2.86E+05
NF	—	—	—	—
NS	-3.25E+05	1.51E+05	-3.22E+05	1.49E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-988. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

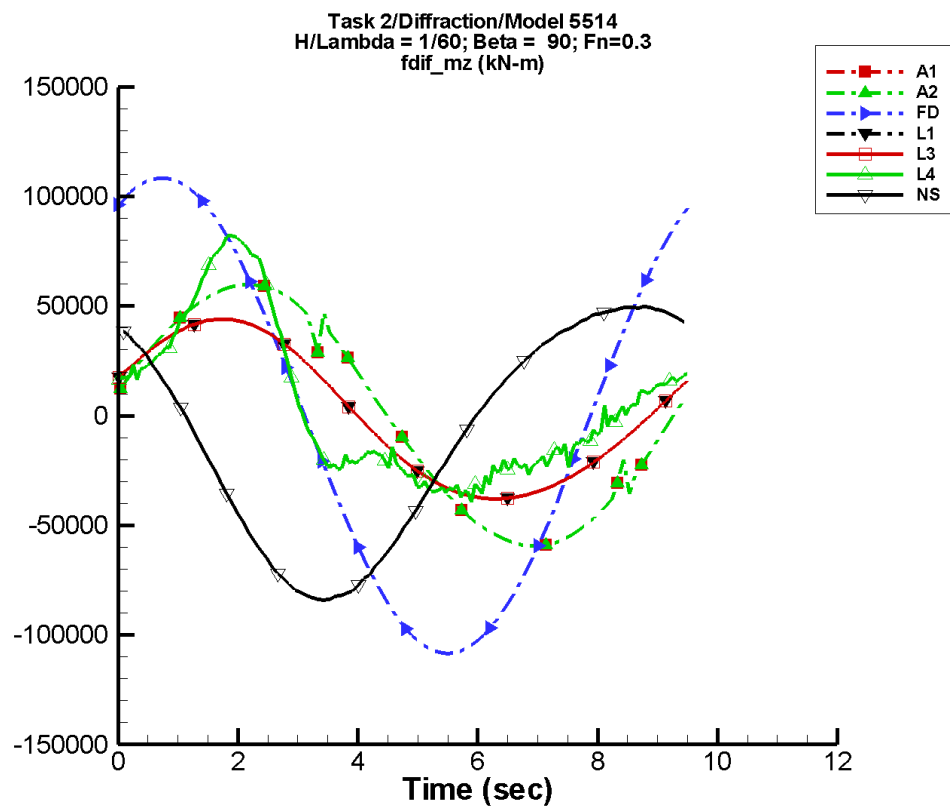
Table H-1975. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-22.6	3.20E+05	-52	541.	-104
A2	3.71E+05	4.00E+05	-72	2.95E+05	124
FD	-317.	4.38E+05	-8	670.	-44
L1	-1.08E+04	3.04E+05	-23	5.63E+04	-86
L3	-1.08E+04	3.04E+05	-23	5.63E+04	-86
L4	1.08E+05	3.47E+05	-18	1.73E+04	24
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1976. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 45^\circ$ ,  $F_n = 0.3$ , and period = 20.33 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.22E+05	3.22E+05	-3.21E+05	3.21E+05
A2	4.76E+03	2.73E+05	7.83E+03	2.71E+05
FD	-4.38E+05	4.38E+05	-4.36E+05	4.37E+05
L1	-2.96E+05	3.37E+05	-2.96E+05	3.37E+05
L3	-2.96E+05	3.37E+05	-2.96E+05	3.37E+05
L4	-3.94E+05	8.11E+05	-2.48E+05	4.85E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-989. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1977. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

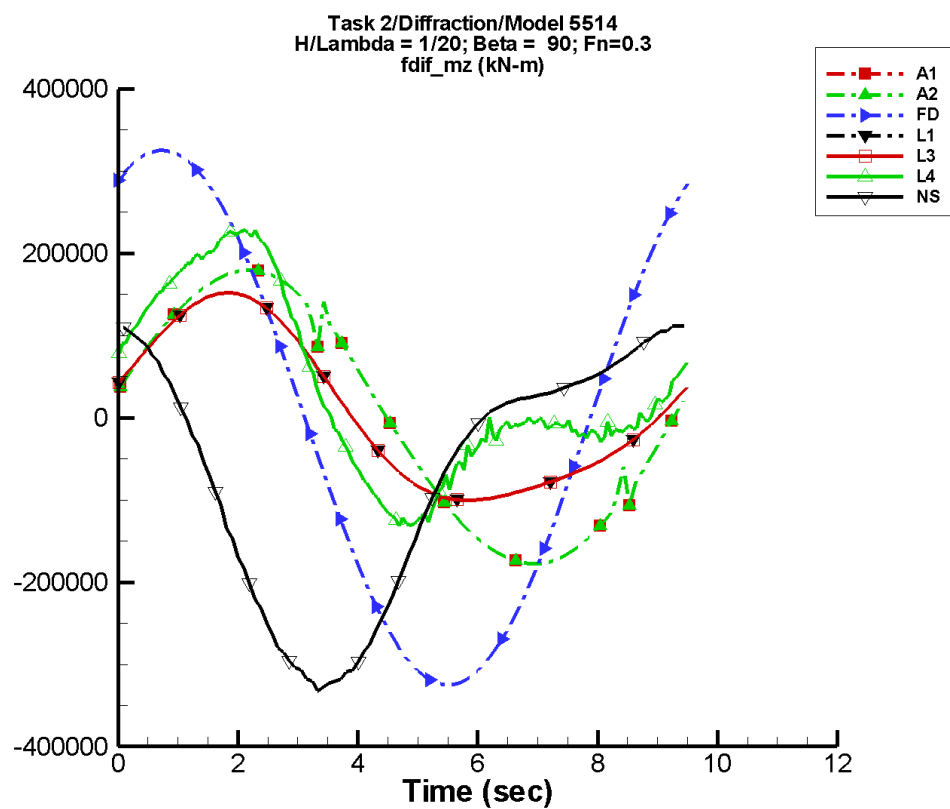
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-61.6	5.95E+04	5	56.5	-52
A2	-61.6	5.95E+04	5	56.5	-52
FD	-2.16	1.08E+05	57	2.66	-124
L1	810.	4.09E+04	24	2.65E+03	-73
L3	809.	4.09E+04	24	2.65E+03	-73
L4	3.72E+03	4.26E+04	37	1.72E+04	-57
NF	—	—	—	—	—
NS	-9.77E+03	6.62E+04	136	8.66E+03	30

Table H-1978. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-5.94E+04	5.99E+04	-5.87E+04	5.93E+04
A2	-5.94E+04	5.99E+04	-5.87E+04	5.93E+04
FD	-1.08E+05	1.08E+05	-1.07E+05	1.07E+05
L1	-3.79E+04	4.40E+04	-3.78E+04	4.38E+04
L3	-3.79E+04	4.40E+04	-3.78E+04	4.38E+04
L4	-3.95E+04	8.23E+04	-3.47E+04	7.99E+04
NF	—	—	—	—
NS	-8.42E+04	4.97E+04	-8.29E+04	4.92E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-990. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

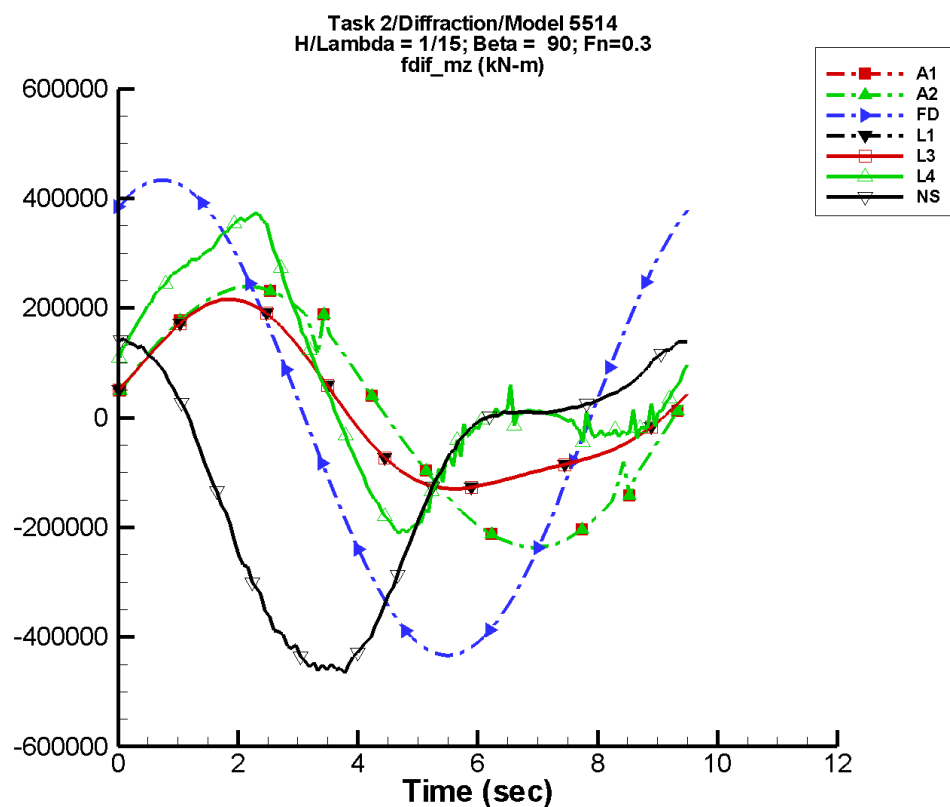
Table H-1979. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-184.	1.78E+05	5	169.	-52
A2	-184.	1.78E+05	5	169.	-52
FD	-6.49	3.25E+05	57	7.95	-123
L1	7.29E+03	1.23E+05	24	2.39E+04	-73
L3	7.29E+03	1.23E+05	24	2.39E+04	-73
L4	3.49E+04	1.29E+05	39	7.56E+04	-62
NF	—	—	—	—	—
NS	-6.93E+04	1.97E+05	134	6.68E+04	30

Table H-1980. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-1.78E+05	1.79E+05	-1.76E+05	1.77E+05
A2	-1.78E+05	1.79E+05	-1.76E+05	1.77E+05
FD	-3.25E+05	3.25E+05	-3.22E+05	3.21E+05
L1	-1.00E+05	1.52E+05	-1.00E+05	1.51E+05
L3	-1.00E+05	1.52E+05	-1.00E+05	1.51E+05
L4	-1.31E+05	2.39E+05	-1.27E+05	2.25E+05
NF	—	—	—	—
NS	-3.33E+05	1.12E+05	-3.21E+05	1.08E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-991. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

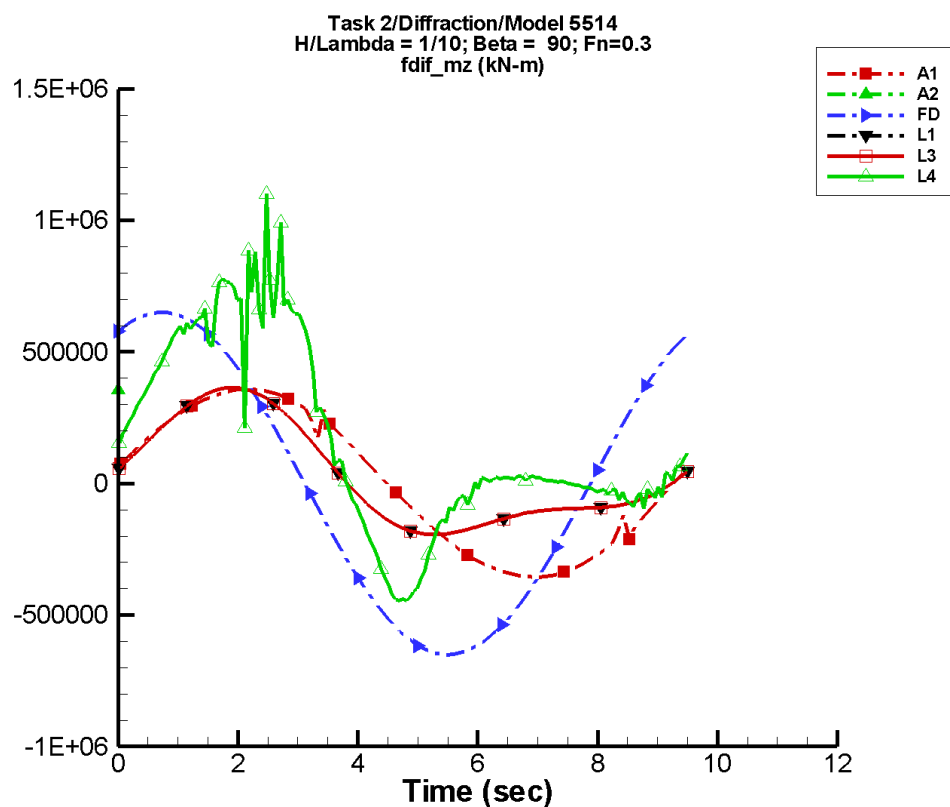
Table H-1981. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-246.	2.37E+05	5	225.	-52
A2	-246.	2.37E+05	5	225.	-52
FD	-8.68	4.34E+05	57	10.6	-124
L1	1.30E+04	1.64E+05	24	4.25E+04	-73
L3	1.30E+04	1.64E+05	24	4.25E+04	-73
L4	6.38E+04	1.88E+05	36	1.28E+05	-64
NF	—	—	—	—	—
NS	-1.09E+05	2.60E+05	133	1.09E+05	28

Table H-1982. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.37E+05	2.39E+05	-2.34E+05	2.36E+05
A2	-2.37E+05	2.39E+05	-2.34E+05	2.36E+05
FD	-4.34E+05	4.34E+05	-4.29E+05	4.29E+05
L1	-1.30E+05	2.16E+05	-1.29E+05	2.15E+05
L3	-1.30E+05	2.16E+05	-1.29E+05	2.15E+05
L4	-2.11E+05	3.73E+05	-2.03E+05	3.65E+05
NF	—	—	—	—
NS	-4.65E+05	1.45E+05	-4.56E+05	1.43E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-992. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

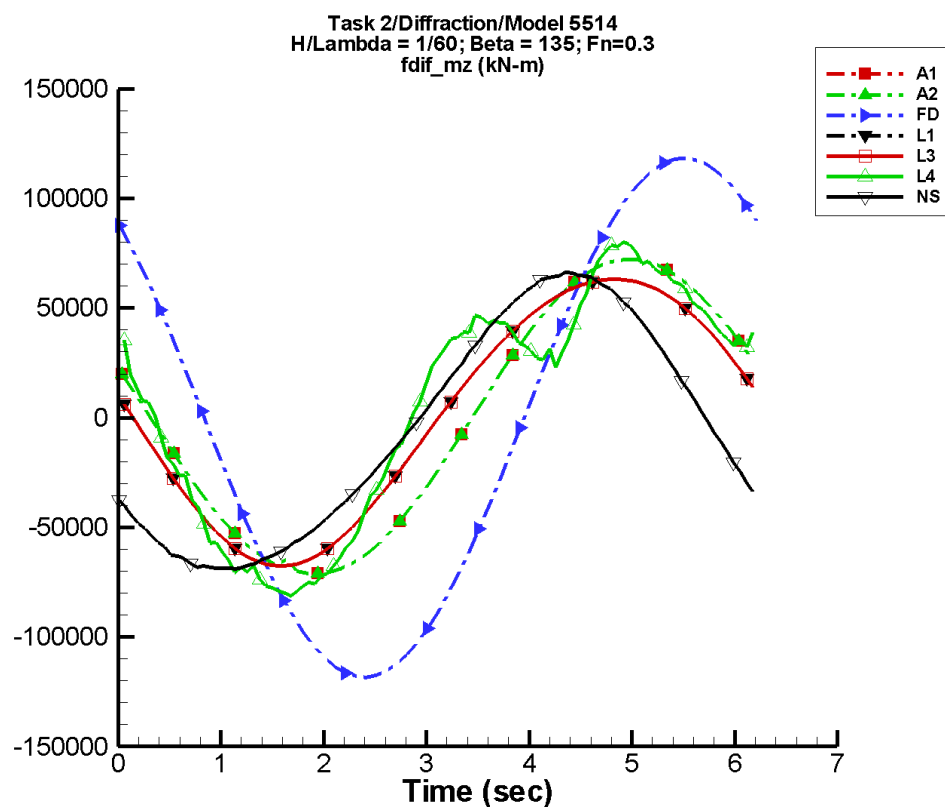
Table H-1983. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	-369.	3.56E+05	5	338.	-52
A2	-3.30E+05	8.74E+05	-41	3.33E+05	-5
FD	-13.0	6.50E+05	57	15.9	-123
L1	2.92E+04	2.45E+05	24	9.57E+04	-73
L3	2.92E+04	2.45E+05	24	9.57E+04	-73
L4	1.57E+05	3.89E+05	26	2.78E+05	-74
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1984. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 90^\circ$ ,  $F_n = 0.3$ , and period = 9.53 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-3.56E+05	3.59E+05	-3.51E+05	3.55E+05
A2	3.55E+05	3.57E+05	3.55E+05	3.57E+05
FD	-6.50E+05	6.50E+05	-6.43E+05	6.43E+05
L1	-1.94E+05	3.65E+05	-1.93E+05	3.62E+05
L3	-1.94E+05	3.65E+05	-1.93E+05	3.62E+05
L4	-4.46E+05	1.10E+06	-4.31E+05	7.99E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-993. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1985. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

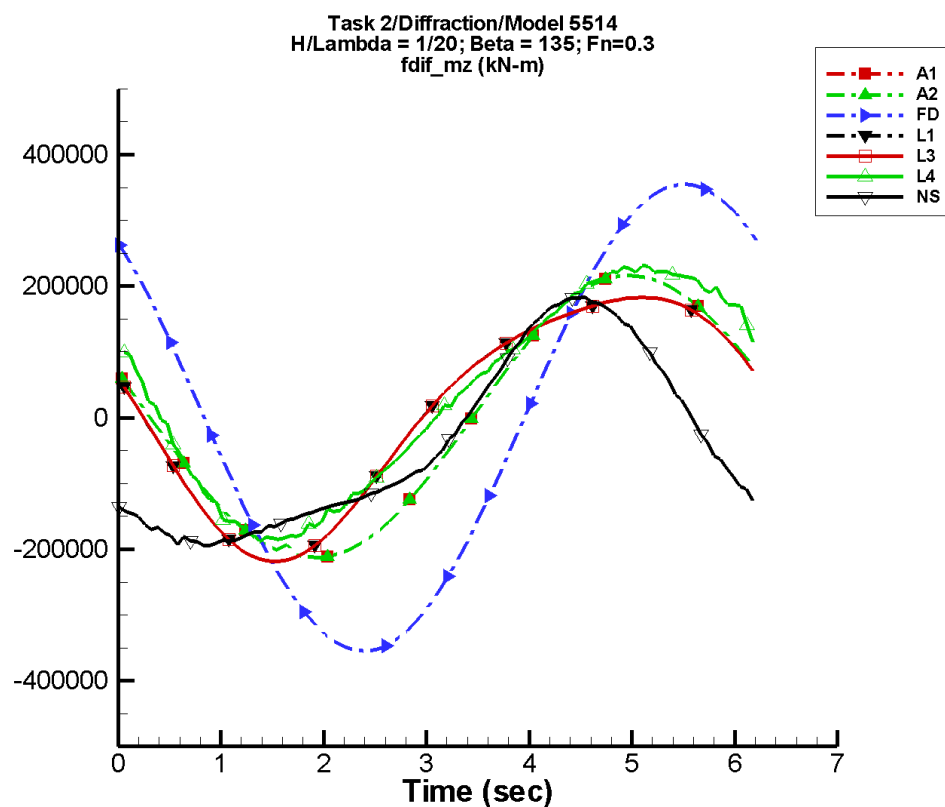
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	83.2	7.18E+04	154	913.	-96
A2	83.2	7.18E+04	154	913.	-96
FD	-87.4	1.18E+05	110	102.	136
L1	1.16E+03	6.53E+04	165	4.06E+03	93
L3	1.16E+03	6.53E+04	165	4.06E+03	93
L4	5.24E+03	6.89E+04	164	1.84E+04	85
NF	—	—	—	—	—
NS	-6.27E+03	6.63E+04	-159	6.54E+03	-92

Table H-1986. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.10E+04	7.22E+04	-6.90E+04	7.03E+04
A2	-7.10E+04	7.22E+04	-6.90E+04	7.03E+04
FD	-1.18E+05	1.18E+05	-1.15E+05	1.15E+05
L1	-6.77E+04	6.32E+04	-6.69E+04	6.27E+04
L3	-6.77E+04	6.32E+04	-6.69E+04	6.27E+04
L4	-8.15E+04	8.01E+04	-7.81E+04	7.63E+04
NF	—	—	—	—
NS	-6.88E+04	6.64E+04	-6.83E+04	6.49E+04



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-994. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

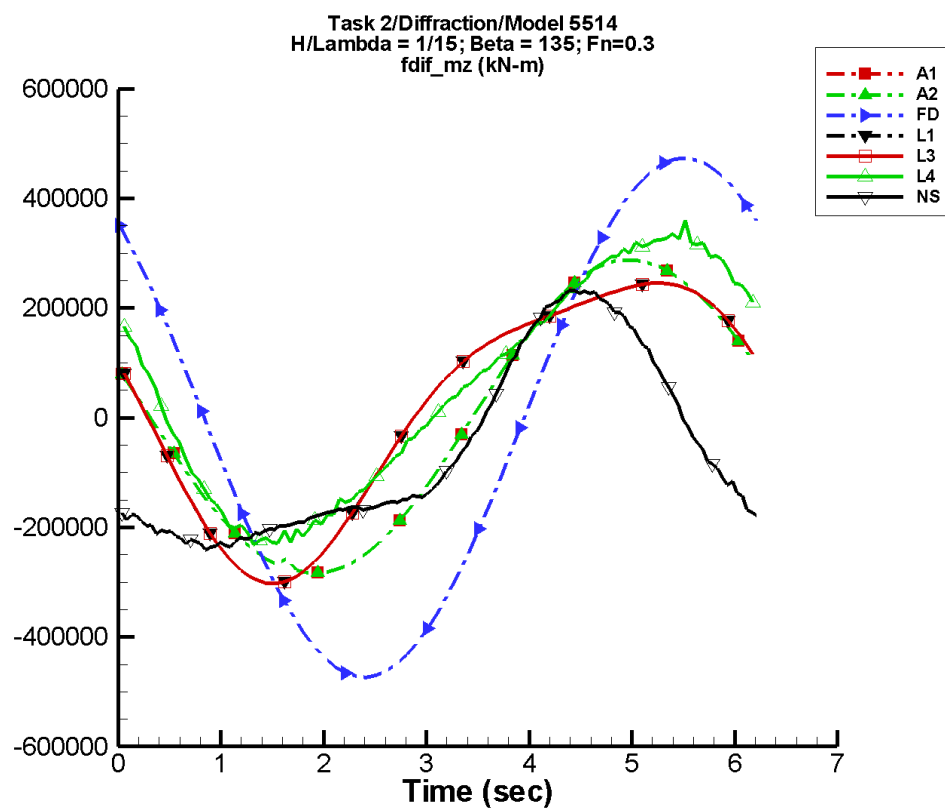
Table H-1987. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	249.	2.15E+05	154	2.73E+03	-96
A2	249.	2.15E+05	154	2.73E+03	-96
FD	-262.	3.55E+05	110	307.	136
L1	1.03E+04	1.96E+05	165	3.62E+04	92
L3	1.03E+04	1.96E+05	165	3.62E+04	92
L4	3.28E+04	2.01E+05	156	3.35E+04	114
NF	—	—	—	—	—
NS	-4.22E+04	1.72E+05	-166	4.81E+04	-87

Table H-1988. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.12E+05	2.16E+05	-2.06E+05	2.10E+05
A2	-2.12E+05	2.16E+05	-2.06E+05	2.10E+05
FD	-3.55E+05	3.55E+05	-3.46E+05	3.46E+05
L1	-2.19E+05	1.83E+05	-2.16E+05	1.81E+05
L3	-2.19E+05	1.83E+05	-2.16E+05	1.81E+05
L4	-1.88E+05	2.32E+05	-1.82E+05	2.25E+05
NF	—	—	—	—
NS	-1.95E+05	1.83E+05	-1.90E+05	1.77E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA.

Figure H-995. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

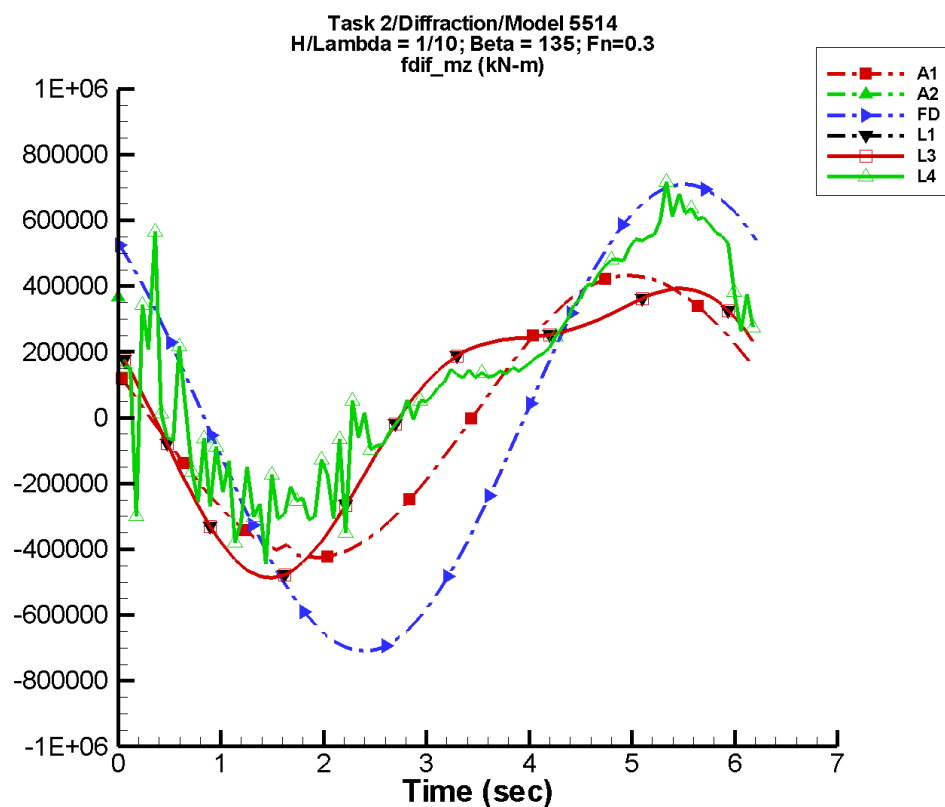
Table H-1989. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	331.	2.86E+05	154	3.64E+03	-96
A2	331.	2.86E+05	154	3.64E+03	-96
FD	-349.	4.73E+05	110	409.	136
L1	1.83E+04	2.61E+05	165	6.43E+04	92
L3	1.83E+04	2.61E+05	165	6.43E+04	92
L4	5.81E+04	2.64E+05	152	5.77E+04	119
NF	—	—	—	—	—
NS	-6.40E+04	2.06E+05	-170	7.37E+04	-84

Table H-1990. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-2.83E+05	2.88E+05	-2.75E+05	2.80E+05
A2	-2.83E+05	2.88E+05	-2.75E+05	2.80E+05
FD	-4.74E+05	4.74E+05	-4.61E+05	4.61E+05
L1	-3.02E+05	2.46E+05	-2.98E+05	2.43E+05
L3	-3.02E+05	2.46E+05	-2.98E+05	2.43E+05
L4	-2.31E+05	3.61E+05	-2.21E+05	3.29E+05
NF	—	—	—	—
NS	-2.42E+05	2.32E+05	-2.33E+05	2.27E+05

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from NFA and NSHIPMO.

Figure H-996. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

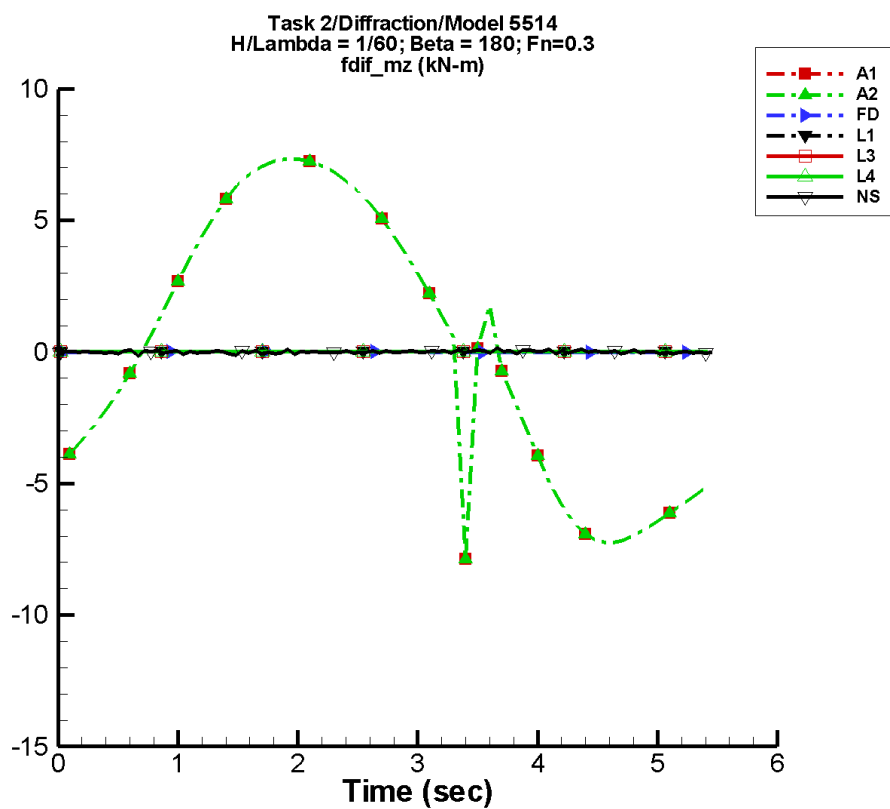
Table H-1991. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	498.	4.29E+05	154	5.46E+03	-96
A2	-1.68E+05	7.51E+05	84	3.85E+05	-101
FD	-524.	7.10E+05	110	614.	136
L1	4.11E+04	3.92E+05	165	1.45E+05	92
L3	4.10E+04	3.92E+05	165	1.45E+05	92
L4	1.33E+05	3.75E+05	150	1.29E+05	132
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-1992. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 135^\circ$ ,  $F_n = 0.3$ , and period = 6.22 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-4.25E+05	4.32E+05	-4.13E+05	4.21E+05
A2	3.67E+05	3.86E+05	3.67E+05	3.86E+05
FD	-7.10E+05	7.10E+05	-6.92E+05	6.92E+05
L1	-4.87E+05	3.93E+05	-4.78E+05	3.88E+05
L3	-4.87E+05	3.93E+05	-4.78E+05	3.88E+05
L4	-4.44E+05	7.18E+05	-2.80E+05	6.34E+05
NF	—	—	—	—
NS	—	—	—	—

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-997. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1993. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

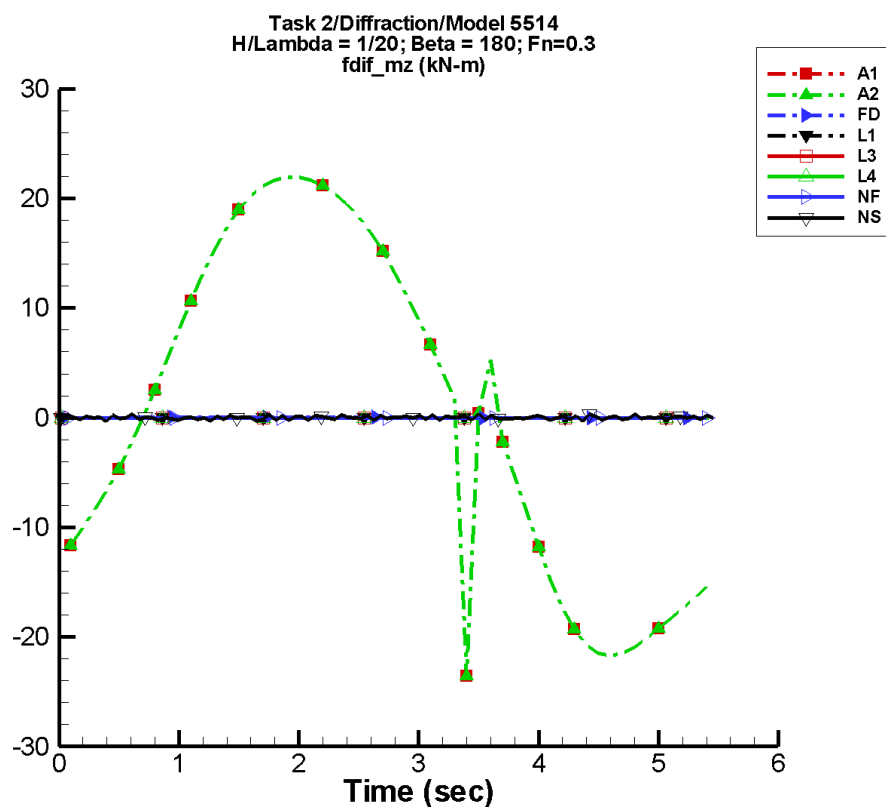
Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	7.22E-02	7.09	-37	0.298	-113
A2	7.22E-02	7.09	-37	0.298	-113
FD	-2.20E-05	1.35E-02	69	5.91E-05	-2
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-7.26E-04	1.84E-02	-154	1.50E-02	-20

Table H-1994. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/60$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-7.88	7.33	-6.94	7.09
A2	-7.88	7.33	-6.94	7.09
FD	-1.35E-02	1.35E-02	-1.31E-02	1.31E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.150	0.166	-2.71E-02	3.37E-02



# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-998. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

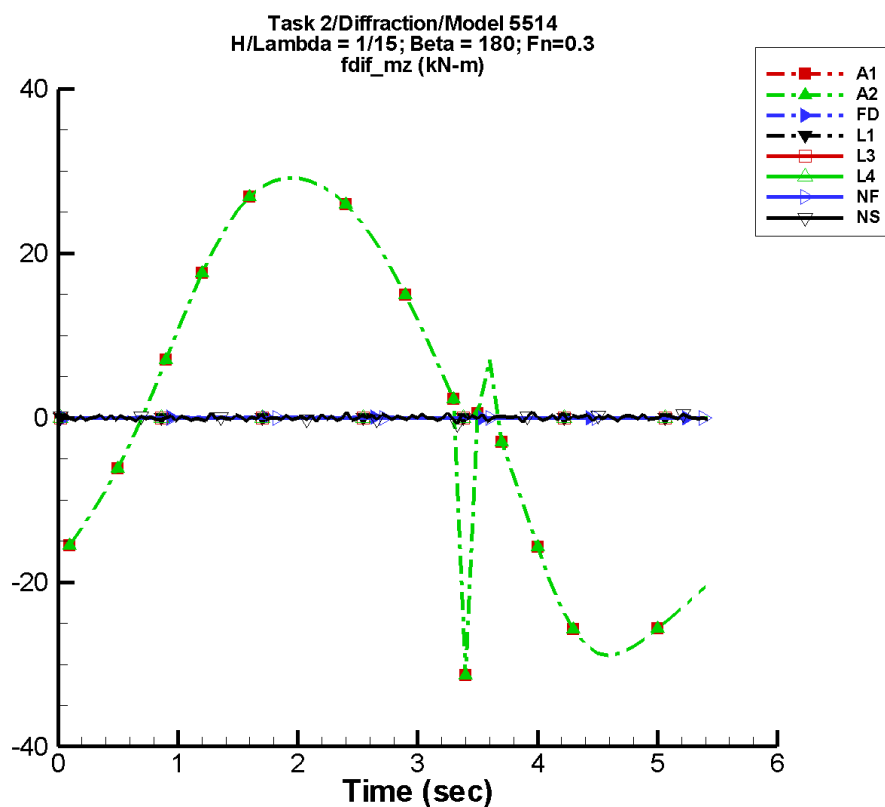
Table H–1995. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.216	21.2	-37	0.890	-113
A2	0.216	21.2	-37	0.890	-113
FD	-6.61E-05	4.05E-02	69	1.77E-04	-2
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	-3.98E-04	2.11E-02	-155	3.85E-02	105

Table H–1996. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/20$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-23.6	21.9	-20.8	21.2
A2	-23.6	21.9	-20.8	21.2
FD	-4.06E-02	4.06E-02	-3.92E-02	3.92E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.360	0.395	-9.88E-02	4.19E-02

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4 and NFA.

Figure H-999. Time history of  $M_z^{dif}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

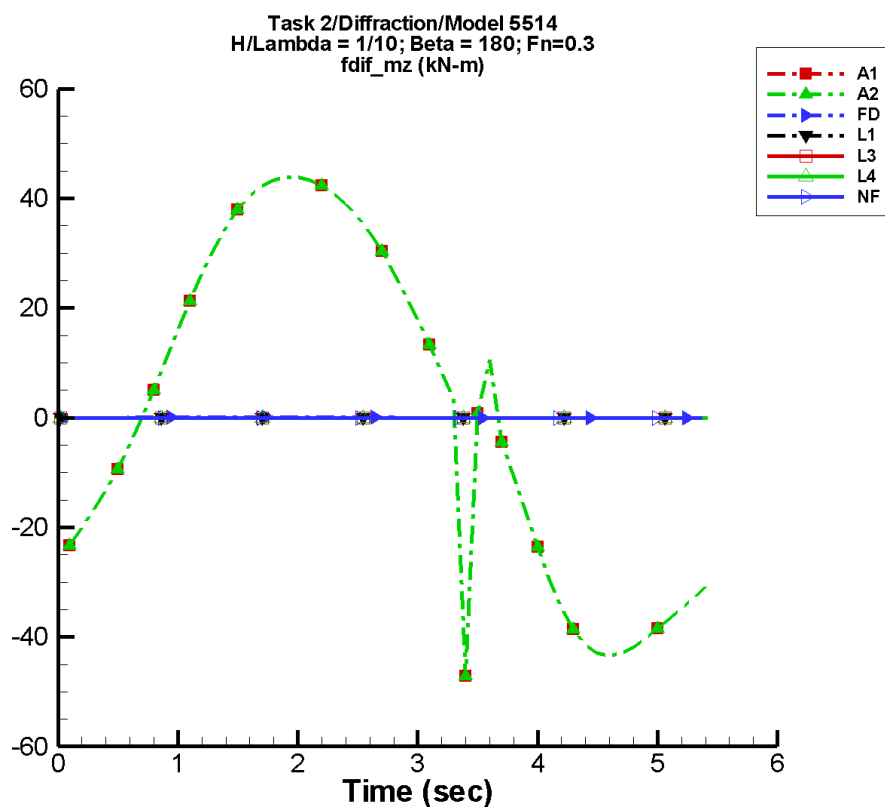
Table H–1997. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.288	28.2	-37	1.19	-113
A2	0.288	28.2	-37	1.19	-113
FD	-8.82E-05	5.40E-02	69	2.36E-04	-2
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	8.35E-03	5.35E-02	-174	3.51E-02	141

Table H–1998. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/15$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.46 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-31.4	29.2	-27.7	28.2
A2	-31.4	29.2	-27.7	28.2
FD	-5.41E-02	5.41E-02	-5.23E-02	5.23E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	-0.753	0.715	-0.172	0.104

# TASK 2/0-DOF IN WAVES/MODEL 5514



Data identically zero, insufficient, or not available from LAMP-1, LAMP-3, LAMP-4, NFA and NSHIPMO.

Figure H-1000. Time history of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to  $L = 142$  m.

# TASK 2/0-DOF IN WAVES/MODEL 5514

Table H-1999. Coefficients of the Fourier fit  $a_0 + a_1 \sin(\omega t + \Phi_1) + a_2 \sin(2\omega t + \Phi_2) + \dots$  of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	$a_0$ (kN-m)	$a_1$ (kN-m)	$\Phi_1$ (deg)	$a_2$ (kN-m)	$\Phi_2$ (deg)
A1	0.432	42.4	-37	1.78	-113
A2	0.432	42.4	-37	1.78	-113
FD	-1.32E-04	8.11E-02	69	3.54E-04	-2
L1	—	—	—	—	—
L3	—	—	—	—	—
L4	—	—	—	—	—
NF	—	—	—	—	—
NS	—	—	—	—	—

Table H-2000. Minimum and maximum of  $M_z^{\text{dif}}$  for one period for  $H/\lambda = 1/10$ ,  $\lambda/L = 1$ ,  $\beta = 180^\circ$ ,  $F_n = 0.3$ , and period = 5.45 sec in the case 0-DOF motion in waves of Model 5514 scaled to L = 142 m.

Code	Unfiltered		Filtered	
	Minimum (kN-m)	Maximum (kN-m)	Minimum (kN-m)	Maximum (kN-m)
A1	-47.1	43.8	-41.5	42.4
A2	-47.1	43.8	-41.5	42.4
FD	-8.12E-02	8.11E-02	-7.84E-02	7.84E-02
L1	—	—	—	—
L3	—	—	—	—
L4	—	—	—	—
NF	—	—	—	—
NS	—	—	—	—